

HISTORY
OF THE
SCHOOL OF DENTISTRY
OF
WESTERN RESERVE UNIVERSITY.

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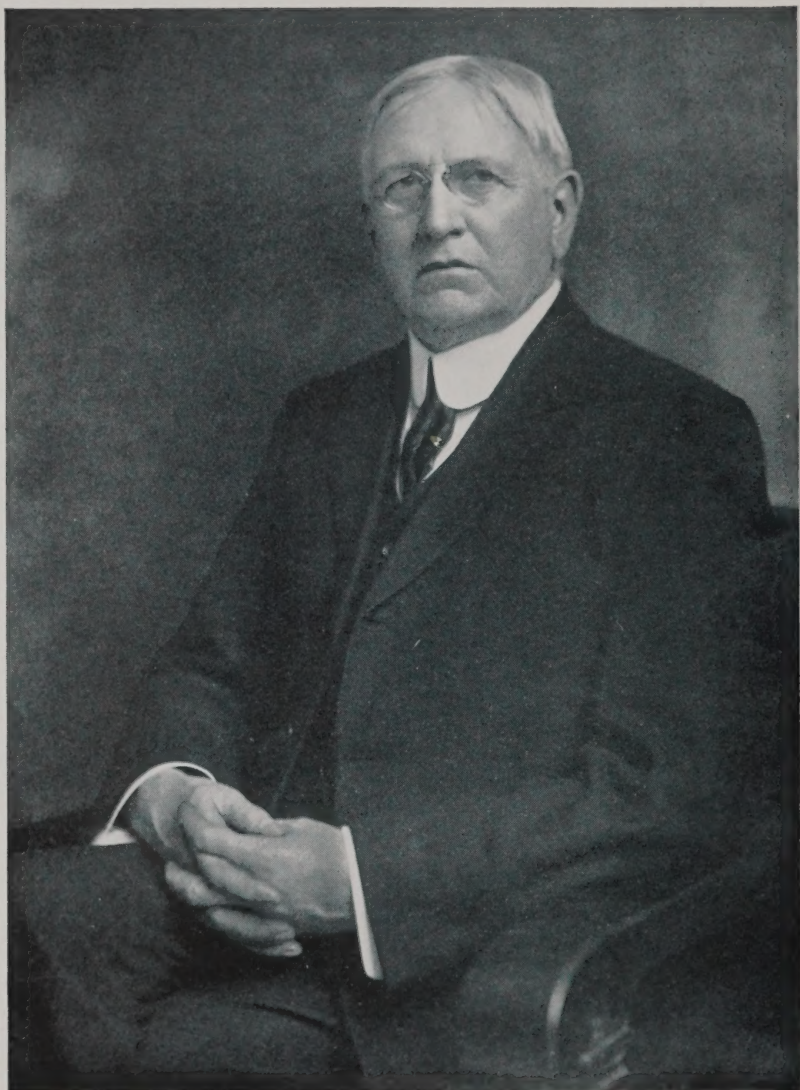
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School of Dentistry



CHARLES FRANKLIN THWING IN 1916

HISTORY
OF THE
SCHOOL OF DENTISTRY
OF
Western Reserve
University

BY
FREDERICK CLAYTON WAITE, A.M., Ph.D.
Professor of Histology and Embryology
Western Reserve University

CLEVELAND, OHIO
1940

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To the Memory

of

CHARLES FRANKLIN THWING

(1854-1937)

President of Western Reserve University from
1890 to 1921

In recognition of his services in higher education
and

In appreciation of nearly fifty years of cordial personal and
official relations

the Author dedicates this

Effort to depict the origin and progress of an
Educational venture that has come to happy fruition.

PREFACE

Results are likely to occasion documentary record, but causes, methods, and relationships which bring them about are frequently found only in the recollections of participants. It has seemed desirable, therefore, to record, while some of the participants are yet living, the story of the initiation of dental education in Cleveland and its development through nearly half a century. Anticipating that before the semi-centennial of the School of Dentistry should have arrived some of those participating would be probably no longer living, the history was written in part in 1926, although its revision and completion have awaited the retirement of the author from the dental faculty in 1940.

Institutions are impersonal, but their history is the result of activities of persons. In this survey of the history of an institution devoted to one limited phase of education in a single locality an endeavor has been made to sketch not only the major facts about the institution, but also to indicate the participation of those persons who, by force of circumstances, were the more active administrative agents in this series of events. To attempt to mention all who had a part in this development would lead to a long catalogue of names. The omission of the name of any person, therefore, is no reflection upon the aid he contributed to this school, but only an acknowledgment of limitations that must be observed both as to persons and as to details of events.

In its first year of activity (1892-93) the institution now known as the School of Dentistry of Western Reserve University was called the Dental Department of the Medical Department of Western Reserve University. In 1893 the term Dental Department of Western Reserve University was adopted, and continued for a single year. Then for ten years the forms College of Dentistry of Western Reserve University and Dental College of Western Reserve University were used interchangeably. In 1904 the form College of Dentistry came to be the accepted designation and was used until 1910 when the present name, The School of Dentistry of Western Reserve University, was adopted. Throughout the entire period the familiar terms, dental college

or dental school, have been used in conversation and often in writing. In the text, if events are restricted, the name current at the time is used, but if events cover a long time and extend to 1910 or later the designation School of Dentistry is used.

The author has been a member of the faculty of the School of Dentistry through more than half of its existence—from 1901 to 1903 and from 1915 to 1940. During the years 1904 to 1914 he was on the medical faculty, but had no active connection with the dental faculty. From 1917 to 1938 he participated actively in its administration.

What follows is therefore written in part from personal knowledge, but in far greater part it rests upon official documents both in manuscript and in printed form, together with some personal recollections of those who had a part in the events that constitute the school's history.

History is more than the mere recital of names, places, and dates. It is more than mere description of events. All these are facts, but, as Agassiz has well said, "Facts in themselves are stupid things until their interrelations are known." In the pages that follow the endeavor is to detail facts accurately and in an orderly way, to call attention to the bearing of one event upon others, and to show not only how, when, and why the Dental Department of Western Reserve University was founded and that it has been the seat of certain significant events and policies, but also to indicate why and how some of these events and policies came about and their relations to antecedent and subsequent conditions. It is hoped thus to escape the tedium of mere annals and to lead the reader to concrete conceptions of an instance of origin and development, through nearly half a century in this one locality of this particular field of professional education.

If one is to understand the history of a particular institution he must know something of the conditions at the time of its founding and the causes of these conditions as deduced from antecedent events. It therefore seems necessary in introductory chapters to review briefly the incidence of dental education in the United States and its development, especially in Ohio. up

to the time of the founding of the Dental Department of Western Reserve University in 1892, and then, in somewhat greater detail, to describe particular conditions in Cleveland. The first four chapters form the background against which, in following chapters, the history of this School of Dentistry is sketched.

The sources of information are so various that it is impossible to acknowledge them all. The minutes of the University Trustees and of both the Medical and Dental faculties have been thoroughly searched. Catalogues, announcements, and official printed reports have been constantly consulted. In the first four chapters forming the background so many sources of record and information have been used that it is futile to attempt to enumerate them. Many inquiries on particular points have been addressed to officials of some other dental schools, to dentists, and to other individuals. For their helpful cooperation I am deeply grateful.

Particularly am I indebted to Dr. Will Henry Whitslar, who gave freely of his time and of his collection of memorabilia in many phases of the work and helped to untangle some apparently conflicting records.

To Dr. Charles Franklin Thwing I am indebted for many discussions as to the purposes of plans and the causes that lay behind many events. A manuscript was prepared in 1926 and submitted to President Thwing and to Dr. Whitslar for their criticism, especially on the period before 1901 when I first became a member of the dental faculty, and on the period from 1904 to 1914 when I was not a member of the dental faculty.

A sincere attempt has been made to achieve accuracy and to restrict inductions and deductions to what the authentic records seem to warrant.

If this work brings to those of the present and to some future readers an appreciation of the earlier history of an institution which, it is hoped, will have a much longer history, then the author's efforts are amply repaid.

May 1940

FREDERICK CLAYTON WAITE

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CHAPTER I

DENTAL EDUCATION BEFORE 1891

Before 1840 there was no institutional education in dentistry given in the medical schools of the United States except a little incidental instruction in extraction.* Men who became dental practitioners fell into three groups, based on the criterion of the method of preparation for practice: first, those who had taken the two-session medical course then current, and after graduation in medicine but before entering upon independent practice of dentistry, had served an apprenticeship of two or three years under a preceptor who was in dental practice; second, those who had taken a part of the medical course before such apprenticeship; and third, those who, without any medical school attendance, had gone directly into such apprenticeship under a dental practitioner. The majority of dentists of the first eighty years of the nineteenth century were prepared under the third of these methods.

In the first incidence of medical schools in America the required preliminary education, including Latin and Natural Philosophy, was adequate for the times, but with the appearance of the first proprietary medical school, The College of Physicians and Surgeons of New York City, in the first decade of the nineteenth century, preliminary educational requirements disappeared, not to be revived for more than fifty years.

Dental students, in common with medical students, usually had meager general or preliminary education. This is clearly expressed in a statement by Dr. Nathan S. Davis, who was prominent in medical education and in the organization in 1847 of the American Medical Association and in its later activities, and served as president in 1864. In 1845 he wrote in the *New York Journal of Medicine and the Collateral Sciences* regard-

* For more extensive discussion see Frederick C. Waite, *The Progress of Dental Education*. Bulletin No. 39, 1925, U. S. Bureau of Education and Carnegie Report on Dental Education. 1926.

ing medical education: "The standard of preliminary or preparatory education should be greatly elevated, or rather, a standard should be fixed, for there is none now either in theory or in practice." This condition prevailed when dental schools began to be established, and for many years thereafter similar statements concerning dental education were made by leading dentists. Preparation for professional training ranged from occasional college graduation down to the bare ability to read and write.

The apprentice system of training for the professions had come down from the system of preparation in the crafts of medieval Europe. Whatever commendation may be given it, and it had its commendable features, it could not be called education. In dentistry, more than in medicine, the training consisted in little more than repeated mimicry of the professional handicraft of the preceptor until, in the opinion of the preceptor, his pupil could be trusted to perform these operations without oversight. Then the apprentice was certified by the preceptor as fit for independent practice, whereupon, usually without further test, he began practice under the designation of dentist or dental surgeon.

There was no essential difference between the apprentice system in dentistry and that in a skilled craft, such as watch making or cabinet making, except that the dental pupil was expected, in addition to his mechanical work, to study books either under the guidance of his preceptor or independently. With the meager general education which characterized most apprentices in dentistry, such guided or independent study of the difficult subjects of anatomy, physiology, and chemistry, merely from inferior, poorly illustrated text-books, and without any practical work, could never be very profitable or give any comprehensive grasp of the relations of these subjects to professional practice. Therefore it may be said that the majority of those who prepared to practice dentistry before 1840, without previous medical courses, had no professional education, but only training by apprenticeship in manipulative dexterity and skill.

In 1840 a group of four physicians, two of whom were prac-

ticing dentistry, founded the first dental school, the Baltimore College of Dental Surgery. If the need was great, the response was not extensive, nor was the popularity of the school striking. Although, in the beginning, the entire dental course of the Baltimore College consisted of attending one session of sixteen weeks only, in its first ten classes (1841-50) it graduated a total of but eighty-five men, an average of fewer than nine a year. In the twenty classes before the Civil War a total of just three hundred men were graduated in course and in but two of these classes (1855 and 1860) did the number exceed twenty-five.

Of these three hundred men only three were from Ohio: A. Calvin Gilman, 1845; A. M. Blandy, M.D., 1849; and Henry B. Young, 1850. The greater part, exactly two-thirds of them, were from southern states. A little over one-fourth were from northern states and about seven per cent were foreigners. Just fifteen per cent of these three hundred graduates also held M.D. degrees. During these twenty years this school granted one hundred and fifty honorary degrees in dentistry, just half as many as were granted following attendance. A considerable number of these honorary degrees were granted to men in foreign countries. Thirty-five of these one hundred and fifty already held the M.D. degree.

It is reasonable to inquire why the early dental schools were not more popular. There were three reasons. The first was that dentistry, as a separate discipline and profession, was opposed by the medical profession because it was then what we now call a specialty. Physicians at that time insisted that each individual should be able to practice all phases of medicine and that restriction of practice was acknowledgment of inferiority. Many physicians practiced dentistry along with medicine, and all of them considered that extraction belonged to the practice of medicine.

The second reason was that the earliest dental schools gave very little practical or clinical work. As in most of the medical schools of that day, the course consisted chiefly of a series of didactic lectures with some human dissection and some demonstrations in chemistry. Graduates were not prepared to enter immediately upon the practice of dentistry, but were forced to

serve an apprenticeship under a preceptor, in addition to the dental school course.

The third reason was that dental schools were opposed by many of the more prominent dentists. These dentists were accustomed to serve as preceptors to a considerable number of apprentices from each of whom a fee was received. These fees varied, but a fee of one hundred dollars a year was frequently mentioned. Moreover, such apprentices were very helpful in office practice. The very fact of being a preceptor and of having apprentices, somewhat gratuitously called students, gave to the practitioner a prestige in the profession and in the community that he not willingly sacrificed. And so it was that the preceptors, fearing that the schools would deprive them of their apprentices, from selfish motives opposed the schools. A similar situation had occurred in the eighteenth century when the first American medical schools were organized.

The original thesis of cooperative effort between a medical faculty consisting of a group of physicians who gave the didactic work (to which later was added human dissection, which individual preceptors could not provide) and individual preceptors, often at a distance, giving the clinical work between two sets of lectures, broke down, and more and more medical schools accepted students who had had no preceptor at all, or only a nominal one.

The logical operation of this plan between school and preceptor in medical education had become neglected when, beginning in 1840, dental schools were established. The dental schools, imitating the procedure in medical schools, gave only lectures, and the dental course consisted of attendance upon the single course of lectures of sixteen weeks duration, the clinical instruction under the preceptor being independent of the lectures. The service under the preceptor sometimes preceded the lectures, sometimes followed them, but it was not required for the dental degree. Soon, however, clinical practice was introduced into the dental schools. This was sometimes supplemented by service under a preceptor. The introduction of clinical practice

into the dental school curriculum preceded by many years the general introduction of clinical teaching into medical schools.

In 1867, when Harvard University entered the field of dental education, two periods of attendance at lectures were required, with an intervening service of eight months under a preceptor. In addition, either a preceding or succeeding term of preceptorship was required before the degree was granted. This was considered a great advance in dental education, but was really only an enforcement of the original thesis in medical education of the relation of didactic instruction in lecture courses and service under a preceptor for clinical instruction. In this standard Harvard, although it was not a member of that association, followed the recommendations of the short-lived Association of Colleges of Dentistry (1866-70).

The second dental school was the Ohio College of Dental Surgery, established in Cincinnati in 1845, five years after the first school was founded in Baltimore. Four students were graduated in 1846.

Other dental schools did not arise rapidly. Only four more schools appeared before the Civil War. One was in Lexington, Kentucky, in 1850, as a department of Transylvania University, the first university affiliation of dental education, but this was destined to exist only two years and graduate but two students. One was in New York City, and another in Philadelphia in 1852; both succumbed within four years. Another was in Philadelphia in 1856, and this continued until 1909. To these should probably be added a school which was organized in Syracuse, New York, but never entered into effectual operation, and probably graduated no students.

From these schools from 1841 to 1860 there were 764* graduates. Of these, 239 were graduated in the decade 1841-50, and 525 in the decade 1851-60. These 764 graduates were distributed among the schools as follows: Baltimore College of Dental Sur-

* The statistics here given are in part from Polk's *Dental Register* for 1925 (p. 34) and in part are compiled from the alumni lists of the various schools.

gery, 450; Ohio College of Dental Surgery, 117; Philadelphia College of Dental Surgery, 94; Pennsylvania College of Dental Surgery, 74; Transylvania University, 2; and one or two schools in New York State, probably most or all from the school in New York City, 27. Of these, probably thirty per cent were recipients of the honorary dental degree. Exactly one-third of the 450 graduated at Baltimore were of the honorary group.

The generosity in giving honorary degrees in dental schools was much greater than in medical schools. In medical schools in the first third of the nineteenth century about ten per cent of those given degrees were in the honorary group. The American Medical Association, on its formation in 1847, endeavored to limit the number of honorary medical degrees, and succeeded in reducing them markedly. At the same time that the medical profession was making this effort, the dental schools became more prolific of honorary graduates than medical schools had ever been. This was one reason for the low regard of early dental schools; and the Association of Colleges of Dentistry, which existed from 1866 to 1870, endeavored to curb the habit of granting honorary degrees, but the Association was soon dissolved by controversy over this principle.

Not until 1867 were as many as one hundred dental degrees granted in any one year in the United States, and not until 1891 did as many as one thousand receive degrees in any one year. In 1899, for the first time, did the number exceed two thousand, and in 1917 the number exceeded three thousand for the first time. In 1939 there were 1,794 graduates.

The census of 1860 showed 5,606 persons in the United States who called themselves dentists. If all the previous graduates in dentistry had been alive and in practice in the United States in 1860, only one out of each seven dentists would have held a degree in dentistry. The actual proportion was probably less than one in ten. In 1860 there was one person who called himself a dentist to each 5,500 people in the United States.

In the decade of the 'sixties seven more dental schools appeared, one in New Orleans, a third school in Philadelphia, another in New York, two in St. Louis, and two in Boston. In this

decade (1860-69) there were 766 graduates. Before 1870 all dental schools except the short-lived Transylvania University School and the Dental School of Harvard University, organized in 1867, were independent, a condition that was true likewise of most medical schools of that era.

In the decade of the 'seventies seven new dental schools were started, three of them as departments of the Universities of Michigan, Pennsylvania, and Vanderbilt. The others were independent and were located in Baltimore, Nashville, Kansas City, and Indianapolis. During these ten years there were 1,775 graduates, as compared with a total of 1,512 in the preceding thirty years.

Twenty-two new dental schools were started in the decade of the 'eighties. Sixteen of these were in connection with universities having medical schools or in connection with independent medical schools. During the ten years from 1880 to 1889 there were 5,054 graduates, forty per cent more than the total for the preceding forty years. The policy of independent dental schools inaugurated in 1840 and continuing for nearly thirty years had, in the 'eighties, given way to the necessity for medical school affiliation and by 1890 only the weakest dental schools lacked such affiliation. Wherever a dental school was affiliated with an arts college or a university, its relation was primarily with the medical department.

Although forty-two dental schools had been organized before 1890, at that date but thirty were in operation. The others had merged or succumbed. Up to and including 1890, 8,694 dental degrees had been granted, and the census of 1890 showed residing in the United States 17,498 persons who called themselves dentists. That is, the number of dentists in practice was more than twice the total number of graduates, but since many graduates had died it is probable that less than forty per cent of the dental practitioners of 1890 were graduates.

There were in 1890 many independent medical schools, and other dental schools continued to arise in connection with these rather than in connection with universities. This was true in Ohio when, almost simultaneously in 1890 and 1891, in each of

its three large cities a dental school was organized in relation to a medical school that had no university connection.

Cincinnati has been a prolific mother of medical schools. Of the seven dental schools organized in Ohio four arose in Cincinnati, but none of these is now extant. One of these medical schools was the Cincinnati College of Medicine and Surgery. This independent medical school had been in operation since 1851, and in 1891 it added a dental department under the direction of Dr. Gustave Junkerman, a graduate in 1881 of the Ohio College of Dental Surgery. At the end of its first year (1891-92) this new school graduated a class of ten men. In its second year (1892-93) a class of five men was graduated. Although an announcement was issued for 1893-94, the school closed before that session opened.

Dr. Junkerman, who had withdrawn from the Dental Department of the Cincinnati College of Medicine and Surgery at the end of its first session, established the Cincinnati College of Dental Surgery in 1893. This was, in a way, a successor of the Dental Department of the Cincinnati College of Medicine and Surgery, since the two schools were not in operation simultaneously and both were organized under the leadership of the same individual. The Cincinnati College of Dental Surgery was an independent dental school with no medical school affiliation. In 1902 it entered into nominal affiliation with Ohio University, in Athens, Ohio, an academic institution located one hundred miles distant, which had neither medical nor other professional schools. This affiliation continued until 1916 when the dental school again became nominally as well as actually independent. Its first class was graduated in 1894 and each succeeding year a small class was graduated, except in 1920, 1921, and 1922, when no class was graduated. It closed in 1929.

The Ohio Medical University, with no relation to any college of arts and science, but with three professional departments of Medicine, Dentistry, and Pharmacy, was organized in Columbus in 1890. In 1907 there was a fusion with Starling Medical College, which had existed since 1848, and in 1914 this combination of professional schools was absorbed into Ohio State University,

and the dental department became the College of Dentistry of Ohio State University.

In 1891 the Homeopathic Hospital College of Cleveland organized a dental department. Its first class graduated in 1892. This school will be considered in detail in a later chapter.

In 1896, again in Cincinnati, was organized the Miami Dental College, another independent school, making three such existing in that city at one time. It existed for but three years and graduated either three or four men.

Of the Ohio schools noted, none, for many years, had any organic connection with a college of arts and science; and none, during the first quarter century of its existence, was what is now termed a university dental school, that is, an organic part of a university. The school in Columbus became the dental department of Ohio State University twenty-four years after its origin. The Cincinnati College of Dental Surgery, as already noted, had for fourteen years a tenuous affiliation with Ohio University. In 1923 the Ohio College of Dental Surgery affiliated with the University of Cincinnati, but this affiliation was of short duration, and at the end of the session of 1925-26 this school closed.

Up to and including 1891, when institutional dental education began in Cleveland, there had been in Ohio something over 800 graduates in dentistry in a period of forty-six years. This was less than nine per cent of the total graduates in the entire United States up to that time.

CHAPTER II

EARLY DENTISTRY IN CLEVELAND

The founding of dental schools in Cleveland was a response to the desire for educational advancement persistently expressed by individual dentists and through dental societies since the formation of the first local dental society, the Northern Ohio Dental Association, in 1857. For this reason it is pertinent to inquire into the origin of the local profession, to follow its growth, and to note some of its activities in dental societies by which both the quality and quantity of public service in the field of dentistry have been promoted.

The city of Cleveland dates its origin from 1796, when it is credited with having had three inhabitants. By 1798 the number had increased to sixteen, and by 1825 it was a village of five hundred people, not including the inhabitants of the settlement on the west side of the Cuyahoga River, later known as Ohio City. The completion of the Erie Canal in 1825 and the building of the Ohio Canal from 1825 to 1832 both had marked influence on the growth of the village, so that in 1835 it counted over five thousand inhabitants. With the completion of railroads in the 'fifties, to Columbus, Pittsburgh, Buffalo, Toledo, and Youngstown came another stimulus to rapid growth in Cleveland. Ohio City was annexed in 1854, so that the census of 1860 showed a population in Cleveland of 43,838. At the end of the Civil War in 1865 there were about 65,000 inhabitants.

With the slow growth of the village up to 1825 there was no great demand for dentists and dentistry. In that era in the United States three types of men were fulfilling some of the functions of a dentist. The general practicing physician extracted teeth at a fee of as little as ten cents each. An occasional physician did some filling of teeth. Adepts in certain mechanical trades, especially jewelers and carvers of wood and ivory, made "false teeth" from bone or dentine of such tusked animals as the elephant and hippopotamus.

However, in small villages, such as Cleveland up to 1835,

there was ordinarily no dental service beyond that rendered by physicians in general practice, whose only remedies for dental ailments were analgesia and extraction. To this were added, occasionally, the temporary services of an itinerant dentist, some of whom traveled through the newly settled country carrying turn-keys, a few hand instruments, medicaments, and filling materials in a pair of saddle bags along with their personal baggage.

For data as to dentists and dentistry in Cleveland prior to 1837, when the first city directory was published, we must rely upon advertisements in newspapers, for newspaper advertising was not then unethical for the professions. The first instance in Cleveland of data of this type was an advertisement in June, 1826, of S. Hardy, a travelling dentist, who was at a local hotel for some six weeks, where he offered to perform all operations in dentistry including insertion of artificial teeth, "in most cases without pain."

An advertisement in 1835 shows that "Doctors Ware and Bradley have formed a connection in the Practice of Operative Dental Surgery by Dr. Ware and of diseases of the Eye and Ear and Practice of Medicine by Dr. Bradley." Dr. J. S. Ware, who came in 1834, was probably the first resident surgeon-dentist in Cleveland. He remained only a year and then went to Detroit. He was succeeded by Dr. James H. Farnsworth, who advertised among other types of service, "irregularities of the teeth of children prevented and remedied." Soon Dr. Farnsworth also went to Detroit. Neither Dr. Ware nor Dr. Farnsworth could have been a graduate in dentistry because there was no dental school until five years later. Probably neither was a graduate of medicine.

Late in 1835 Dr. Benjamin Strickland, "Dentist and Manufacturer of Incorruptible Teeth" began practice in Cleveland. Although he was then but twenty-five years old, he stated in his advertisement this year that he had had several years experience in the practice of his profession. He was really the pioneer of the dental profession in Cleveland, and even in his early years of practice was recommended in print by the leading local physicians. He was born in Vermont July 19, 1810. He practiced

in Cleveland until his retirement in 1876, and lived in the city until his death on February 21, 1889.

Dr. Strickland's professional standing may be judged by the fact that the American Society of Dental Surgeons, at its second meeting in 1841, elected him a member. He was then only thirty-one years of age, and he was the only Ohio dentist elected that year. In 1842 there were but two other members in Ohio of this first, and exclusive, society of dentists. These were Melancthon Rogers, M.D., of Cincinnati, a charter member, and W. E. Ide, M.D., of Zanesville. Dr. Strickland was one of three in Ohio upon whom the Baltimore College of Dental Surgery early conferred its honorary degree of D.D.S., the other two being Dr. James Taylor, who in 1845 founded the Ohio College of Dental Surgery, and his brother, Dr. Edward Taylor. This honorary degree was conferred in 1843 when Dr. Strickland was thirty-three years of age. At that time he held the degree of M.D., but from what institution the author has been unable to ascertain. Later Dr. Strickland had much to do with the formation, progress, and activities of the local dental societies.

Of course the earliest dentists had no D.D.S. degrees. The first school degrees in America were conferred in 1841 by the Baltimore College of Dental Surgery. Not until Dr. Thomas McCune came in 1857 was there in Cleveland a dentist who had taken the D.D.S. degree in course. Some, however, had M.D. degrees.

After the establishment of dental schools in Cincinnati and Philadelphia, a few men with the degree in dentistry located in Cleveland, but up to the beginning of the Civil War only six dentists in Cleveland appear to have had the dental degree. Ten dentists who lacked the dental degree had the medical degree. The remaining forty-three who practiced dentistry in Cleveland at some period before the Civil War had neither degree. A few of these had taken one course of lectures in a medical school, but more than two-thirds of all practitioners of dentistry in Cleveland before the Civil War had attended neither a dental nor a medical school. They had received all of their professional education from a preceptor, and their general education was no

better than the average of those discussed in the previous chapter.

The first city directory, published in 1837, contains a fairly reliable record of the number of dentists practicing in Cleveland. It carries the names of three surgeon-dentists for a population of approximately five thousand. This small proportion was not unusual in larger cities. In 1830 in Cincinnati with a population of thirty thousand there were but three dentists.*

From 1835 to 1852, when building of railroads caused sudden increase in population, the number of dentists in Cleveland increased but slowly, but in the next five years the number more than doubled. After 1857 there was no marked increase until after the Civil War.

In the period before the Civil War the largest number of dentists listed in the Cleveland City Directory of any one year was twenty-two, but there was constant change of the personnel of the profession, so from 1835 to 1861 fifty-eight different individuals were resident dentists or surgeon-dentists in Cleveland. In Appendix I will be found the names of all the men who practiced dentistry in Cleveland before the Civil War, together with some data concerning their years of practice in Cleveland, their training as indicated by the degrees they held, and some notes on their affiliations with early dental societies.

The increase in the number of dentists practicing in Cleveland from 1835 to the end of the nineteenth century can be approximated from the number of names in the classified list in the city directory in the years noted below. For comparison the population is given below in the United States census years, and approximately estimated in certain of the earlier years, from available data and current references. Up to the beginning of the Civil War the data is based on each issue of the city directory; after that it is based on five year intervals. The population before 1857 does not include the area west of the Cuyahoga River, which was known as Ohio City until 1854.

* *Dental Register*, 1848, p. 211.

DENTISTS IN CLEVELAND IN THE NINETEENTH CENTURY

Year	Population	Number of Dentists	Approximate Number of population to each dentist
1820*	606	0	
1830*	1076	0	
1835	5000	2	2500
1837	6000	3	2000
1840*	6071	3	2000
1846	10000	4	2500
1848	12000	6	2000
1850*	17034	7	2400
1852	25000	9	2200
1857	34000	20	1700
1859	38000	22	1800
1860*	43417	22	2000
1861		20	
1865	65000	17	3800
1870*	92829	28	3300
1875		35	
1880*	160,140	51	3300
1885		55	
1890*	261,353	88	3000
1892		103	
1895		131	
1900*	381,768	202	1900

A profession is more than the aggregate number of practitioners who serve those who come as patients. A profession implies mutual relations between individual members, and joint activities reflected not only by improvement of the service given by the individual to his patients, but also in a common betterment of the whole profession and in larger general public service. These joint activities are usually expressed in the form of associations or societies.

To understand the professional basis upon which dental education in Cleveland was erected, we must know something

* Census years are indicated by an asterisk.

more than the number of practitioners, their training, their years of service, and their individual capabilities. We must have some idea of the extent to which they were jointly active, what they did in addition to serving their patients day by day, and how they were looked upon by their confreres in other places as indicated by the offices they held in dental organizations. We must therefore examine briefly the activities of the local dental profession in dental societies.

The American Society of Dental Surgeons, organized with twenty-four charter members in 1839 in New York City, was the first American dental society. Of this society Dr. Benjamin Strickland became a member in 1841. Out of this society grew the American Dental Convention (1855-76) in which dentists from all over the country met annually. In 1855 this convention passed a resolution recommending the organization of local societies.

In response to this recommendation, the Dental Convention of Northern Ohio, with thirty-six original members, was organized in Cleveland on November 3, 1857. At that time Cleveland had twenty dentists. This society was later known as the Northern Ohio Dental Association, and it is one of the few dental societies organized before 1860 that have continued to the present day. Since 1935 only executive meetings have been held.

Of this northern Ohio organization Cleveland dentists were presidents for fifteen of the first seventeen years. The meetings were held twice a year either in Cleveland or in other towns of northern Ohio. The papers and discussions were usually on matters of practice, but there were occasional papers on dental education. It is of interest that the first resolution adopted at the first meeting in 1857 was one approving the elevation of standards of dental education.

In 1859 the American Dental Association was organized. Of this association Dr. William H. Atkinson, of Cleveland, was the second president, holding office in 1860, and Dr. Charles R. Butler, of Cleveland, was in 1888 the twenty-ninth president. The third Cleveland dentist to hold this office was Dr. Frank M. Casto in 1935. Cleveland dentists have held many minor offices in this

national association, as well as major and minor offices in the societies organized by various specialties of dentistry in later years. The third meeting of the American Dental Association was held in Cleveland in 1862, there having been no meeting in 1861 because of the War. This national association met in Cleveland in 1862, in 1911, and in 1923, and will hold its fourth Cleveland meeting in September, 1940. These instances give evidence of the position that Cleveland and Cleveland dentists have held in national organization affairs from their early beginning.

The Ohio State Dental Association was organized in January, 1867, and seven of its charter members were Cleveland dentists. Dr. W. P. Horton of Cleveland was secretary at the organization meeting. During its seventy-three years it has had many presidents and other officers from Cleveland.

In September, 1868, under the chairmanship of Dr. Benjamin Strickland, was organized the Forest City Society of Dental Surgeons. It continued five years and then disbanded. After more than a decade in December, 1886, the Cleveland Dental Society was organized under the presidency of Dr. David Rawson Jennings and has continued active to the present time.

The few facts here cited give evidence that the dentists of Cleveland have been active from a very early period in the promotion of the interests of the profession as a whole. Of these interests none is more essential than provision of adequate means of effective education and training for those who seek to enter the profession, and the organized profession has continually given evidence of their appreciation of this necessity. The first major activity of the Ohio State Dental Association when it was organized in 1867 was to secure legislation creating a Board of Dental Examiners. Ohio, New York, and Kentucky have the distinction of being the first states to secure such legislation, all in the year 1868. The only statute for the regulation of dentistry passed in any of the states before 1868 was one in Alabama in 1841, but it was not effectively enforced. Dr. W. P. Horton, of Cleveland, was the first secretary of the Ohio Board of Dental Examiners. One action of the Ohio State Dental Association was a very definite incentive to better professional training: begin-

ning in 1868, it restricted its membership to graduates of dental schools and licentiates.

That comparatively few practicing dentistry in Cleveland were graduates of a dental school was not a condition peculiar to Cleveland, for even in 1875, when fourteen dental schools had been founded, of which ten were in operation, a paper was presented before the Northern Ohio Dental Association showing that of 541 dental practitioners in Ohio, only 103, or less than twenty per cent, were graduates of dental schools. This percentage increased as years went on, and in 1892, of the 103 dental practitioners in Cleveland approximately forty per cent held degrees in dentistry.

It is now appropriate to consider the question of the inauguration of formal institutional dental instruction in Cleveland. It began in 1874 with establishment of a professorship in the field of dentistry in the Medical Department of Western Reserve College. This continued seven years and was followed by an interval of ten years during which there was no formal dental instruction in any Cleveland institution.

In 1891 came the organization of the first dental school in Cleveland. It came at a time when there was a tidal wave of organization of new dental schools throughout the United States, for thirty-four were organized in the ten years from 1886 to 1895.

CHAPTER III

MATTERS ANTECEDENT TO THE FOUNDING OF THE SCHOOL OF DENTISTRY OF THE WESTERN RESERVE UNIVERSITY

Preceding Conditions in Western Reserve University

On February 7, 1826, by legislative act, a charter was granted to Western Reserve College. This charter gave the power to conduct all types of education and to grant all kinds of degrees. This college was founded in Hudson, a village situated twenty-five miles south of Cleveland, and instruction began in October, 1826. At that time Hudson had a population of about half that of Cleveland.

In 1843 a group of medical men withdrew from the faculty of the Medical Department of Willoughby University which had been established in 1834 in Willoughby, a village twenty miles east of Cleveland. In the summer of 1843 this group organized a medical school in Cleveland under the name of Cleveland Medical College, and they began instruction in November, 1843. On February 23, 1844, the charter of Western Reserve College was amended to permit it to give instruction outside of the village of Hudson, and the Cleveland Medical College became the Medical Department of Western Reserve College. No mention of dentistry was made in this amendment.

Shortly after Western Reserve College was removed to Cleveland in 1882 and its name changed to Adelbert College, there was issued, on April 5, 1884, a charter for Western Reserve University. This charter specifically mentioned instruction in the departments of medicine, law, art, and music, but of these only the department of medicine was then in existence. A few years later affiliations were made with existing teaching organizations of art and music. These affiliations proved temporary. Art existed from 1888 to 1891, and music from 1888 to 1895. No mention is made of dentistry in the university charter. Therefore, there appears no evidence of intent to establish a dental school in Western Reserve University when the charter was granted in 1884.

On June 22, 1886, only two years after the charter of Western Reserve University was issued, Carroll Cutler, the president since 1871, resigned. In January, 1888, he was succeeded by Hiram C. Haydn. In President Haydn's administration the College for Women was founded and affiliations were made with the School of Art and the Conservatory of Music. In his presidential reports of June, 1888, 1889, and 1890, President Haydn made no mention of contemplated instruction in dentistry. On August 29, 1890, he resigned the presidency. In 1905 he wrote a short history of the college and university, but in it he did not mention consideration of establishment of dental education in his administration. A careful examination of the minutes of the medical faculty from 1843 to the end of 1891 fails to reveal any reference to the establishment of a dental school. We may say, therefore, that, after careful search, prior to January, 1892, no documentary evidence is found of any intent to establish a dental school in Western Reserve University.

However, though there is no documentary record, there is evidence from the recollections of some men who were connected with the school of medicine before 1891 that the possibility of establishing a dental school had been discussed, but had been dismissed. This is borne out by the statement in the next paragraph. The author, however, has been unable to determine with any degree of accuracy the year in which the informal discussion occurred. Some of the evidence is based on recollections of men who were elderly when the statements were made to the author that it was sometime in the late 'eighties, but in the opinion of the author it is probable that it was not until the first months of President Thwing's administration, which began in November, 1890.

In the summer of 1891, when Dr. W. H. Whitslar was contemplating forming a dental faculty in connection with the Homoeopathic Hospital College, he had a conference with Dr. Gustav C. E. Weber, at that time dean of the Medical Department of Western Reserve University. Dr. Weber stated that the starting of a dental school in connection with the medical department had been discussed, but no definite action had been taken and, in his

opinion, nothing was likely to be done. From this one might infer that the discussion had been recent. Within a few months, however, the medical faculty of Western Reserve University voted to establish a dental school. This shows a rather abrupt change of policy, the probable reasons for which are discussed in a later chapter. All this seems to indicate that there had been no serious contemplation of establishing a dental school in Western Reserve University up to President Thwing's administration.

It is commonly stated that during the first forty years of formal dental education in the United States (1840-80), either because of contempt or neglect, the medical schools had ignored instruction in dentistry. Harvard and the Universities of Michigan and Pennsylvania are admitted exceptions in the latter part of the period. There are other exceptions not well known. Among them is the present School of Medicine of Western Reserve University.

In 1874 the Medical Department of Western Reserve College added lectures in oral surgery to its curriculum. In 1875 these were increased to include dental pathology, and Dr. Lewis Buffet, who had been giving the instruction during the session of 1874-75, under the title of lecturer on oral surgery, was made professor of oral surgery and dental pathology with full faculty membership and on the same basis as the professors of other subjects. The faculty minutes show that he was a constant attendant at faculty meetings during the six years of his incumbency, and was a member of important committees.

This relation was in advance of the usual condition, and is one of the very few cases in the United States where instruction in dentistry was put on a par with other subjects of the medical curriculum. The teacher of dentistry, however eminent locally in his profession, was usually denied a professorship and relegated to the obscurity of a lecturer. Moreover, his subject was frequently only optional, not a requirement in the medical curriculum. The inauguration and successful continuance for seven years of dental instruction in the medical curriculum at Western Reserve was largely due to the personality of the incumbent of that teaching post.

Dr. Lewis Buffet, Lecturer on Oral Surgery 1874-5 and Professor of Oral Surgery and Dental Pathology 1875-81, was born in Schaghticoke, New York, May 21, 1837. He had studied dentistry under a preceptor in New York and in 1859 had begun the practice of dentistry in Cleveland. In 1863 he had been graduated from the Pennsylvania College of Dental Surgery, returning thereafter to Cleveland, where he resumed the practice of dentistry. During the session of 1864-65 he was a student in the Medical Department of Western Reserve College, receiving the M.D. degree in 1865.

Dr. Buffet had the highest type of professional education then known in American dentistry. He was a graduate in course both in dentistry and in medicine from schools that were, at that time, of high rank. Moreover, his preliminary education exceeded that usually found among dentists, and he was a man of great capability and personal charm. He was one of two or three leading men in the dental profession of Cleveland and northern Ohio in the 'seventies.

His connection with the medical faculty continued until the union in 1881 of the Medical Department of Wooster University and the Medical Department of Western Reserve College. The terms of this union restricted the professorships to sixteen, to be distributed among the former professors of the two schools. In this list of professors, elected by ballot of the professors themselves, the name of Dr. Buffet does not appear, and therefore his teaching in the medical school was terminated by the merger. Each of the professors in the medical school was too much influenced by the desire to secure his own place in the new combined faculty to further the interests of any of his colleagues. The election was at a critical meeting where a Common Pleas judge was paid one hundred dollars to preside. In 1889 Dr. Buffet left Cleveland and moved to Easton, Maryland, where he practiced dentistry until about the time of his death, on January 27, 1901.

Although Dr. H. L. Ambler was a lecturer for two years in the 'sixties at the Western Homeopathic College, Dr. Buffet was the pioneer dental institutional educator of professorial rank in Cleveland. He was a forceful teacher, and had he been in Cleve-

land in 1892 would probably have been asked to lead in the founding of the Dental Department of Western Reserve University. Indeed, there is said to have been serious consideration of recalling him to Cleveland for this purpose.

A short summary of dental instruction in Cleveland institutions other than Western Reserve University may here be given. In 1851 the University of Cleveland was organized under the leadership of Rev. Asa Mahan. This institution was located on the south side of the Cuyahoga River and continued but four years. No mention of dental education is made in its announcements.

At one time, at least, in its earlier history, the Western College of Homeopathic Medicine, established in 1850, offered instruction in dentistry; for two years following his graduation from the Western Homeopathic College in 1868, Dr. Henry L. Ambler, later dean of the Dental Department of Western Reserve University, held the post of lecturer on dentistry and oral surgery. There is some indication that lectures on dentistry were given subsequent to 1870 and before 1891 in this medical school, but not throughout the period. No lecturer on dentistry appears in the faculty lists during the period 1873-76. The entrance of this institution into dental education by the formation of a dental school in 1891 will be treated in the next chapter.

The Cleveland Medical College was an institution established in 1890 following dissension in the Homeopathic Hospital College. It continued for eight years as a rival of the Cleveland University of Medicine and Surgery with which it merged in 1898. In this medical school in the 'nineties there was a lectureship on dentistry occupied by Dr. J. R. Bell (D.D.S., Ohio College of Dental Surgery, 1876). Exactly how many years this lectureship continued is not known, but it was for only a few years. Statements in Ambler's *History of Dentistry in Cleveland* led to the inference that this instruction by Dr. Bell was a continuation of his instruction in the Homeopathic Hospital College prior to the disruption in 1890 and that it occurred in the 'seventies and 'eighties, but evidence has not been found to support this inference.

In the minutes of the Medical Department of Wooster University for May 23, 1887, it is recorded that a committee of three members of the Faculty was appointed to consider "the feasibility of annexing a dental department to our medical school." The later minutes carry no report from this committee nor any further reference to a dental school.

Information is lacking as to the exact date when the organization of a dental school by Western Reserve University was informally discussed among the members of its medical faculty. There is reliable evidence that Dr. Butler and Dr. Ambler were consulted on this question before July, 1891. Whether it was before or after 1887, the evidence is clear that the discussion concerning founding a dental school, but without consummation, occurred among members of the faculties of both of the regular medical schools in Cleveland prior to the organization in 1891 of a dental school in one of the homeopathic medical schools.

CHAPTER IV

THE DENTAL DEPARTMENT OF THE HOMEOPATHIC HOSPITAL COLLEGE AND CLEVELAND UNIVERSITY OF MEDICINE AND SURGERY

The following somewhat extensive sketch of the history of the first dental school in Cleveland, with appendices, is based upon documentary evidence from newspaper notices, catalogues, and announcements of both the medical and dental schools, and certain private documents, all of these supplemented by the recollections of some men who were intimately concerned in its origin, progress, and decline. Although extensive search has been made, the faculty minutes have not been located.

This sketch is included in a historical treatment devoted primarily to another school both because it had some influence on the early history of that second Cleveland school, and because there is nowhere printed any history of this first Cleveland dental school, whose records are scattered and incomplete. If it is not included here there is likely to be no historical record of this first institutional venture in dental education in Northern Ohio.

On March 20, 1850, there was organized in Cleveland a medical school to teach the tenets of Samuel Hahnemann, which had been slowly growing in popularity in the United States during the preceding twenty-five years. This school was called the Western College of Homeopathic Medicine, a suitable name at that time since the only other homeopathic medical school was in an eastern state. In 1857 the name was shortened to Western Homeopathic College. By 1870 it had become a misnomer because there were other homeopathic schools in Chicago and St. Louis, nearer the setting sun than Cleveland, and its name was changed to "Homeopathic Hospital Medical College."

In the early summer of 1891, after attending one session at the Philadelphia Dental College, Mr. George E. Bishop suggested to his brother, Dr. Hudson D. Bishop, who was professor of chemistry in the Homeopathic Hospital College, that the organization of a dental school would be a help to the medical college.

This is the first suggestion of such an organization that can be traced, but it should not be forgotten that as early as 1868 a course of lectures on oral surgery and dentistry had been given in this medical school by Dr. Henry L. Ambler.

Anything that would give added prestige and advantage over its rival recently established by a seceding group of the faculty, and that would add to its student body, could not be other than welcome to the Homeopathic Hospital College. The fact that no other homeopathic medical school in the country had a dental department would at least give uniqueness and possibly distinction, and would draw dental students with homeopathic sympathies.

Unless this matter had been earlier under consideration, and the evidence is that it had not, the action of the faculty and trustees of the Homeopathic Hospital College was rapid, if not hasty, for on July 21, 1891, a circular letter was sent to the members of the dental profession in Ohio and adjoining states announcing the organization of a dental school in Cleveland. This was received with surprise by the dental profession. The need was not considered urgent among dentists as there were dental schools in Philadelphia, Cincinnati, Columbus, Ann Arbor, and Chicago, to which the dental profession of northern Ohio were accustomed to look, and none of these schools was overcrowded. The connection with a homeopathic medical school was not a favorable factor. Homeopathy was clearly on the wane in 1891 and the dental profession had never shown enthusiasm for its contentions.

The first public announcement made in Cleveland was in the *Plain Dealer* of August 8, 1891. This announcement from the trustees stated that land had been purchased and a new building would be erected at once adjacent to the Homeopathic Hospital in which commodious quarters for the dental school would be provided. It was also stated that, while the faculty had not been entirely selected, it was to be composed of the best talent obtainable.

Bravery and faith on the part of the Homeopathic Hospital College were required to launch this new venture. Some con-

sidered it folly. Among the dental profession there was doubt as to whether the purpose was to advance dental education or to bolster up a medical school commonly reputed to be in distress. After two prominent dentists were approached with an offer of the deanship, it appeared that no satisfactory dental leader in town was willing to inaugurate the venture. Homeopathy was less militant and less popular in Cleveland than formerly, but the strenuous contentions of earlier years were not yet forgotten. This school was one of the two local homeopathic medical schools that were active rivals after a bitter controversy less than two years gone. The dental practitioner who championed this venture took the chance of alienating some of his clientele.

Finally, the trustees of the medical school wisely went out of town to seek a dean and chose Dr. Will Henry Whitslar, a graduate in dentistry at the University of Michigan in 1885 and in medicine at Rush Medical College, which was not a homeopathic institution, in 1886. Dr. Whitslar, twenty-nine years of age, was a dental practitioner in Youngstown, Ohio. He had a wide acquaintance and was the son of one of the older and better known dentists of northern Ohio. He was already well known among dentists as a writer and lecturer.

Dr. Whitslar immediately set about the formation of a teaching staff for the dental subjects. The time was short, little more than six weeks, before the medical school was advertised to open on September twenty-second. Some invitations to teaching positions in the new dental school, which had been made by members of the medical faculty to local members of the dental profession, had to be withdrawn. Dean Whitslar concluded to bring in another young man from out of town to take charge of the technic laboratories and clinic, and Dr. George Henry Wilson, a graduate in dentistry at the University of Michigan in 1878 and a practitioner in Painesville, Ohio, was selected. So, at the age of thirty-six, Dr. Wilson began a teaching career that was destined to lead to a nation-wide reputation. To these two were added six Cleveland dental practitioners of established professional standing: Dr. Henry Barnes, Dr. Seymour B. Dewey

Dr. Herbert F. Harvey, Dr. David R. Jennings, Dr. Ira E. Sampsell, and Dr. Jere E. Robinson. Dr. Louis P. Bethel, of Kent, Ohio, was chosen also. Of these nine men selected to teach the dental subjects in the new school the majority were graduates in dentistry, at a time when only forty per cent of the Cleveland profession were graduates.

Construction had not yet begun on the new building for the medical and dental schools promised in the newspaper announcements of August 8th, and the dental school must have rooms for instruction announced to begin October first. No room was available in the hospital where the medical school carried on its instruction, so outside quarters were sought. Portions of the second floor of a new Y.M.C.A. building, which had been erected two years before on the southeast corner of Prospect and Erie (now East Ninth) Streets within a block of the Homeopathic Hospital College, were rented and put in readiness.

At this point, early in September, Dean Whitslar fell ill of malarial fever and this incapacitated him until November 1st. Into this emergency came Dr. Seymour B. Dewey who, as acting dean, carried along the preparations, so that instruction was begun on October 1st, only a little over three months after the decision to establish the school was reached. The equipment was meager, much less than a thousand dollars having been allowed for this purpose by the Board of Trustees.

The dental faculty had no officers in the first year except the dean, the duties of registrar, secretary, and treasurer being performed by these respective officers of the medical faculty. During the first year there were no formal meetings of the dental teachers, only informal conferences by the dean with the men teaching dental subjects. Hence there are no faculty minutes. These men were not invited to sit with the medical faculty since none of them had been honored with a professorial title. Not even the dean of the dental faculty was invited to the meetings of the medical faculty. All communications from the dental teachers to the medical faculty were transmitted through the secretary of the medical faculty. There were, however, confer-

ences between Dean Whitslar and Dr. John C. Sanders, the dean of the medical faculty.

The relations between the medical members and dental members of the combined teaching staffs were most cordial. Dental students, without extra charge, were permitted to attend any of the lectures given to medical students, in addition to the medical courses required in the dental curriculum.

The broad viewpoint of the medical faculty allayed the early foreboding by not requiring the dental students to attend instruction in homeopathic materia medica and therapeutics, although they permitted them to do so voluntarily. A graduate in dentistry, Dr. Louis P. Bethel, was assigned to teach materia medica and therapeutics to the dental students and the emphasis was directed to the application to dentistry rather than to any particular theory of medical therapeutics.

The First Year

The teaching staff consisted of two sections, one for the dental subjects, and one for the subjects common to the medical and dental curricula. In this latter group the dental students attended classes in only a few of the subjects of the medical curriculum, but twelve of the members of the medical faculty were attached to the dental faculty, including three surgeons and a neurologist.

An embarrassing situation arose regarding titles of the members of the staff who taught dental subjects. Four of the men held no degrees, dental or otherwise. The medical faculty objected to the conferring of the professorial title upon men who had no degrees. To avoid irritating distinctions which might arise if the men holding degrees were designated as professors, all were designated as instructors in 1891-92. An attempt to remedy this situation brought unfortunate sequences which will be stated later on.

In the announcement for the first year of operation the dental subjects were assigned to be taught as follows: *

* A complete list of the teachers of dental subjects in the school throughout its five years of existence (1891-96) is given in Appendix II.

Principles and Practice of Dental Science, Dental Pathology and Embryology, Dean Whitslar; Metallurgy, Dr. Wilson; Dental Medicine, Dr. Bethel; Irregularities of the Teeth and Filling Material, Dr. Robinson; Care of Children's Teeth and Continuous Gum Work, Dr. Dewey; Operative Dentistry, Dr. Barnes; Operative Dentistry, Dr. Harvey; Prosthetic Dentistry, Dr. Sampsell. Operative Dentistry and Appliances was assigned to Dr. Jennings, but he gave actually no instruction and remained nominally connected with the school for only a year. His appointment may be correlated with the fact that he had a wide local reputation in Cleveland at the date of the school's organization. Dr. Harvey was put on the teaching staff in his absence and without his consent, and he did no teaching.

Since the men who gave instruction in the medical sciences were not specifically teachers of the dental students, but only accepted dental students in their classes, it does not seem necessary to mention them individually. It was with the teachers of the dental subjects that the fate of the school lay.

The Dental Department announced at the outset that it would follow the requirements of the National Association of Dental Faculties, though it was not a member and did not become a member until near the end of its career. It was, therefore, the regulations of this association that determined its entrance requirements, length of course, and curriculum. The length of session was set at six months, and attendance upon three sessions was required. This usual dental school standard, which became effective in 1890, remained unchanged throughout the five years of the school's existence.

In the first announcement the subjects in the list which follows were set down, but this did not mean that each continued throughout the year and that a student took from ten to thirteen subjects at one time. Some were relatively short courses lasting but a few weeks, their places being taken thereafter by other subjects. Obstetrics and gynecology seem hardly appropriate in a course for dental students, but such a course was included. Some of the subjects were completed in a single session with a final examination at the end. Others ran through two sessions,

but this did not mean that two separate courses were taught, or even that entirely new material was given in the second session. The same course was attended for two years, depending upon variation in presentation and material to avoid repetition of identically the same instruction. This was called the "circular course," common in medical schools of that time, a relic of the era before the professional curriculum was graded.

Curriculum

The subjects in the curriculum of each year are arranged in alphabetical order in the following lists, from the catalogue of the school:

First Year: Anatomy, Clinics, Dissections, General Chemistry, Materia Medica, Metallurgy, Normal Histology and Microscopy, Osteology, Physiology, Prosthetic Dentistry, Sanitary Science.

Second Year: Anatomy, Clinical Dentistry, Clinics, Dental Anatomy and Histology, Dissections (if not completed during the first year) General Chemistry, Materia Medica, Microscopy and Pathological Histology, Physiology, Practical Chemistry, Prosthetic Dentistry, Surgery, Theory and Practice of Dentistry.

Third Year: Clinics, Dental Anatomy and Histology, Dental Medicine, Diseases of Children, General Pathology, Medical Electricity, Obstetrics and Gynecology, Oral Pathology, Rhinology and Laryngology, Surgery and Surgical Pathology, Theory and Practice of Dentistry.

In the first session an endeavor was made to arrive at some correlation with clinical medicine and surgery, but this largely disappeared at the end of this session, only the course in diseases of children being carried through the entire career of the school.

Faculty

The dental members of the first teaching staff have already been named. Certain of these will later be found on the teaching staff of the Dental Department of Western Reserve Univer-

sity, where further mention of them will be made. There were, however, four of these members whose entire connection with dental education in Cleveland was with this school. These were Dr. Barnes, Dr. Dewey, Dr. Robinson, and Dr. Sampsell.

Dr. Henry Barnes, born in England, came to Cleveland in 1870, studied dentistry under the preceptorship of Dr. John Stephan, Sr., and attended one session at the Medical Department of Wooster University. Beginning in 1873, he practiced for more than fifty years with a high degree of efficiency, for he was a careful, inventive, and active operator and teacher. He was one of the most active men in the organization, and he remained an ardent supporter to the end, occupying positions connected with various phases of operative dentistry and technics. He was president of the Northern Ohio Dental Association in 1894 and 1895, and a member of the Ohio Board of Dental Examiners from 1902 to 1908. He died in Cleveland December 6, 1932, at the age of eighty-two years.

Dr. Seymour B. Dewey, who was associated with the school throughout its history, serving as dean after the first year, had attended the Ohio College of Dental Surgery for one session in 1871-72. He was an indefatigable worker and scholar, consistently serving in his professorship and in the deanship. He and Dr. Barnes bore the major part of the burden of the years when the school was declining, and they did all that was humanly possible to avert the inevitable end of the school.

Dr. Jere E. Robinson was the son of a dentist who practiced for a short time in Cleveland, but spent most of his professional career in Jackson, Michigan. He studied dentistry in Cleveland under the preceptorship of his father and uncle. He entered practice in Cleveland about 1853 and continued until 1900 when he retired. He taught operative dentistry in the Dental Department of the Homeopathic Hospital College, being in charge of this subject throughout the life of the school. He was adept in technical work and developed courses in certain phases of it. He was the senior member of the faculty and his maturity of years and long experience had large influence in the solution

of its teaching problems. He died in Brooklyn, New York, July 13, 1907, at the age of seventy-five years.

Dr. Ira Emmitt Sampsell was a graduate of the College of Dental Surgery of the University of Michigan in 1880. Declining an opportunity there, he came to Cleveland in 1885. When the Dental Department of the Homeopathic College was formed he accepted the teaching of prosthetic dentistry. He showed himself an able teacher and gave promise of a successful teaching career, but just as the session closed and before commencement, he died suddenly of heart disease on March 15, 1892, at the age of thirty-four years.

Students

The short notice of the opening of this school made the matter of securing a student body of any considerable size a serious problem. However, fifteen men entered on October 1st. Two of these held the M.D. degree, and under the then usual procedure that a graduate in medicine could obtain his dental degree in one year, these two were assigned to the senior class. Of the remaining thirteen, five had been in some dental school for one or two years and were assigned either to senior or junior classes. Thus the school started instruction to six seniors, one junior, and eight freshmen.

The tuition was \$100 a year, with a matriculation fee of \$5.00 and a graduation fee of \$25, which remained unchanged as long as the school operated. There were no additional laboratory or dissection fees. This meant a total income of \$1,725 from student fees for the first year. The other sources of income were meager and the Homeopathic Hospital College had no surplus to devote to the dental group of subjects. Fees charged patients in the clinic were small, and the number of patients were few, so that there was little income from this source.

From this total of less than \$2,000 there had to be paid rent, cost of materials, clerk hire, and miscellaneous expense which left very little from which to pay stipends to teachers. As a matter of fact, only two men were paid anything, and they received less than \$400 each for the session.

The Board of Visitors

Early in the first months it was proposed that the standing and repute of the school might be aided if well known dentists in Ohio and adjacent states would lend their names to the endorsement of the school. Therefore a "board of honorary visitors" was created. This was in imitation of the old board of censors that characterized all the early medical schools in the days of preceptorships.

It was hoped that these men, all prominent in the dental profession, would direct some students to the school. Moreover, advice from such experienced members of the profession was not unwelcome to a group of men inexperienced in educational organization who were earnestly trying to start a dental school.

The first board of visitors consisted of the following dentists: Hugh W. Arthur, Pittsburgh, Pennsylvania, D.D.S., 1867, Baltimore College of Dental Surgery; Edward G. Betty, Cincinnati, Ohio, D.D.S., 1876, Ohio College of Dental Surgery; John R. Callahan, Cincinnati, Ohio, D.D.S., 1877, Philadelphia Dental College; Frank Creager, Fremont, Ohio; Allen T. Emminger, Columbus, Ohio, D.D.S., 1876, Ohio College of Dental Surgery; George W. Field, Detroit, Michigan; Chester H. Harrcun, Toledo, Ohio, D.D.S., 1866, Ohio College of Dental Surgery; James A. Libbey, Pittsburgh, Pennsylvania, D.D.S., 1882, University of Pennsylvania; Corydon Palmer, Warren, Ohio, D.D.S., Ohio College of Dental Surgery (Year not given in Ohio College list); Jeremiah A. Robinson, Jackson, Michigan; Cyrus See, Meadville, Pennsylvania; J. G. Templeton, Pittsburgh, Pennsylvania; Frederick Shiveley Whitslar, Youngstown, Ohio.

The First Year

The organization of a dental school on short notice, with limited facilities and scarcely any money, by a group inexperienced in teaching, was a large task. This task the faculty zealously performed to the best of their ability with the limited resources at their command.

A month after the opening Dean Whitslar wrote to the dean

of the medical school saying "that the faculty is fully organized and in full operation. Being the first dental school in connection with a homeopathic college, the eyes of the profession are upon us. It means hard work for every member of the faculty." He urged "the necessity of extracting from every dental student the same requirements equal to a medical student." He stated that "the department is running smoothly, the instructors are a unit, and all that remains is a concentration of our forces in placing the school on a firm basis and securing an enviable name."

Instruction was given by lectures, clinics, quizzes, and laboratory work. There was practically no library or museum. Clinical material for dental operations was meager, for the clinical methods of a dental school were new and not understood in Cleveland. Hence the school was viewed by some as a sort of quasi "advertising parlor." The faculty were very much averse to soliciting patients except through the students. The medical members did not assist much in directing patients to the dental clinic, because they did not understand the situation. However, enough suitable material was supplied to enable the students to have considerable clinical experience. Requirements for a certain number of points in each kind of filling were unheard of. Operative technic was in its infancy. Full and partial dentures were made of rubber. Gold was seldom used because of expense, and porcelain was a curiosity used only for the wealthy. Cocain as a local anesthetic was just becoming known when the school was founded. Its use was feared and so it was seldom used. Nitrous oxide gas was administered, but its combination with oxygen was not used at this time.

Orthodontia was still dabbling in the old-time methods, and during the existence of the school the newer procedures were just becoming known. Only a limited number of crowns were made, and little bridge work was done. The requirements for graduation did not include these branches.

The requirements for graduation were those of the National Association of Dental Faculties and were the same throughout the history of the school. The candidate must be twenty-one

years old, attend three sessions, treat satisfactorily some patient requiring the usual dental operations, and take up a sufficient number of prosthetic cases to insure proficiency. Eighty per cent attendance was required. Graduates in medicine could enter the junior year. However, in the first year of the college, graduates in medicine were permitted to enter the senior year. Women were admitted as students, but only one completed the course. The work must be done in the college and satisfactory evidence of proficiency must be given in examinations to entitle the candidate to be recommended to the trustees for graduation.

The first Commencement of the Dental Department occurred in conjunction with the forty-second Commencement of the Medical Department in the auditorium of the Y.M.C.A., March 22, 1892, at eight o'clock in the evening. After the dean of the medical department had given an extensive report of the medical school and its growth in establishing a department of dentistry and a maternity hospital, Dean Whitslar told of the first year's work in the dental department. He said it had been characterized by a degree of success almost un hoped for. The year had closed with all expenses paid and property worth \$1,000 in hand, and utmost harmony prevailed among the members of the medical and dental faculties.

The trustees conferred degrees upon twenty-three medical and six dental candidates.* At this Commencement the honorary degree of D.D.S. was conferred upon Henry Barnes, Seymour B. Dewey, Jere E. Robinson, and Frederick S. Whitslar. The honorary degree of M.D. was conferred also upon the first three of those just named, and upon Louis P. Bethel. Three of these recipients of honorary D.D.S. degrees were members of the dental faculty and the procedure was admittedly to place these men in such position that the medical faculty would consent to their being named as professors in their respective subjects. The fourth recipient was one of the board of visitors.

* In Appendix III is given a complete list of the graduates of this dental school, together with an approximately complete list of its students who did not graduate and indications of which of them continued in dentistry.

However, this granting of honorary degrees proved a bar to the ambition of the school to be admitted into the National Association of Dental Faculties.

The Decline

Echoes of the felicitations of commencement night had hardly ceased when it became known that the Medical Department of Western Reserve University was about to organize a dental school and that four of the nine dental members of the faculty of the Dental Department of the Homeopathic Hospital College, having fulfilled their one-session agreement, had resigned to join the new project of Western Reserve University. These four resignations included those of the dean and the superintendent of the clinic. Dr. Sampsell had died a few weeks before. Therefore only four of the original nine members were left, namely Dr. Barnes, Dr. Bethel, Dr. Dewey, and Dr. Robinson.

Dr. Seymour B. Dewey, in the emergency of a few months earlier when Dr. Whitslar was ill, had shown his administrative ability and was now appointed dean of the dental faculty. He proceeded to seek men to fill the vacancies. There were six months to rebuild the teaching staff and prepare for the next session, and the school had behind it the reputation of having actually operated one year and of having graduated a class, but in spite of these advantages, when the session of 1892-93 opened there were but twelve students, while the new school of Western Reserve University had twenty-one. Five of the nine students who had been underclassmen in 1891-92 did not return.

At the annual meeting of the National Dental Faculties Association in 1892, the Dental Department of the Homeopathic Hospital College applied for membership,* and under the rules of the Association, the application was laid over for a year. At the 1893 meeting the application was rejected. The proceedings as printed** do not give the cause for rejection, but it is known that the major cause was the granting of honorary degrees in

* *Cosmos* 34:726

** *Cosmos* 35:1080

dentistry to three members of the faculty in 1892, such action being contrary to the rules of the association. There was opposition by neighboring schools to the admission of this school. At the same meeting the application of the Dental School of the University of Buffalo was rejected. The proceedings carry a vote that if that school should revoke the two honorary degrees it had given and secure the return of the diplomas, it would be admitted. This was done and, without further action, the Dental School of the University of Buffalo was received into membership. No similar action by the association appears in regard to the Dental School of the Homeopathic Hospital College. However, two of three honorary dental degrees conferred in 1892 were revoked in 1894; the third was permitted to stand since its recipient, Dr. Dewey, had pursued one course of lectures in a dental school twenty years earlier.

At the meeting of the Association in 1894 the school, under its new name of Dental Department of Cleveland University of Medicine and Surgery, applied again. In spite of continued opposition of neighboring schools, it was admitted at the meeting of 1895* and Dr. S. B. Dewey, the dean of the school, was present, as the accredited representative, at both the 1895 and 1896 meetings of the Association, but the school continued only one year after securing this membership.

The teaching staff of the second year (1892-93) was composed of six dental members, compared with nine in the first year, of whom but seven had done any teaching. Two new teachers were secured in addition to Dr. Barnes, Dr. Bethel, Dr. Dewey, and Dr. Robinson of the old faculty.

Dr. William Thomas Jackman, D.D.S., 1887, Philadelphia Dental College, took the teaching post left vacant in prosthetics by the death of Dr. Sampsell, and that in metallurgy left vacant by the resignation of Dr. Wilson. He also became superintendent of the dental laboratories. These positions he filled as long as the school continued. All of these five men were appointed to

* *Items of Interest* 17:649

professorships, the disabilities of a year before having been removed by honorary degrees which had not yet been revoked.

A young man just out of school, John Franklin Stephan, D.D.S., 1892, Chicago College of Dental Surgery, with the title of instructor, instituted a course in crown and bridge work. He remained on this faculty but a year, resigning to join the dental teaching staff of Western Reserve University. In 1893-94 he was succeeded by Grant Mitchell, D.D.S., of Canton, Ohio, a graduate in 1886 from the Philadelphia Dental College, as professor of crown and bridge work and orthodontia, who in turn remained but a year and was succeeded by Charles Gibson Myers, D.D.S., from the Baltimore College of Dental Surgery in 1888, who held the same title as his predecessor. He taught these subjects for the last two years of the school.

When, by the resignation of Dr. Wilson, the position of superintendent of clinics was left vacant at the end of the first year, Professor Robinson took his post and continued to fill it until the school closed.

In 1891-92 there had been no faculty organization and no faculty meetings, all the teaching staff having the title of instructor, but with the appointment of five men to dental professorships, the faculty was organized and Professor Robinson was made secretary. He held this office until the last year, 1895-96, when Professor Jackman succeeded him.

At the end of the year 1893-94, after three years of service in teaching dental medicine and therapeutics, Professor Louis P. Bethel resigned. A year later he joined the teaching staff of Western Reserve University. Lafayette L. Barber, D.D.S., 1885, at the University of Michigan, a practitioner of Toledo, Ohio, accepted this professorship and remained for the last two years of the school.

There was considerable shifting in the titles of this teaching staff, which was composed of but six dental members each year after the first. Of the fourteen who were members during the five years of the school's existence, six resigned and joined the staff of the Dental Department of Western Reserve University.

The dental members who continued with the faculty were plucky and worked zealously. All were imbued with the spirit of better education in dentistry and labored incessantly to develop dentists with high ideals and reasonable capability. Causes for the decline of this school are not hard to find. The major cause was meagerness of resources, and since most of the income was from fees of students, it became largely a matter of attendance.

So long as this was the only dental school in Cleveland it could expect to attract a certain number of students from northern Ohio, but as soon as a dental school was organized in connection with the Department of Medicine of Western Reserve University, local competition was very significant. Western Reserve was able to house its dental school in an almost new medical school building reputed to be one of the best in the country. In 1893 the medical school had received an endowment, one of the first endowments to medical schools in this country, and it brought considerable prestige. Western Reserve was a fairly complete university with undergraduate colleges and other professional schools, and its dental students did not have the handicap of association with homeopathy as did the students of its rival institution. The following table of attendance tells the story of the two schools in the years following 1891-92:

Comparative Table of Attendance at the Dental Schools of Cleveland University of Medicine and Surgery and of Western Reserve University, 1891 to 1896:

<i>Year</i>	<i>Cl. U. M. & S.</i>	<i>WRU</i>	<i>Year</i>	<i>Cl. U. M. & S.</i>	<i>WRU</i>
1891-92	15	Not in existence	1895-96	23	53
1892-93	12	21	1896-97	Closed	86
1893-94	23	30	1897-98	"	91
1894-95	27	53	1898-99	"	96

The above table shows the steady increase of students in the Dental Department of Western Reserve University, and also that its attendance was, at all times, larger than in the school of the Cleveland University of Medicine and Surgery.

Although the latter school was conducted ethically and harmoniously, it was increasingly handicapped by inadequate financial support. The Western Reserve school began with more equipment, better quarters, and with the patronage of a larger institution. When the session of 1895-96 closed, it was evident that the end was at hand; so, after careful consideration by the faculty and upon the advice of members of the dental profession who had no connection with either school, the Cleveland University of Medicine and Surgery relinquished its equipment, good will, and students of the dental department to Western Reserve University in October, 1896.

At the faculty meeting of October 3, 1896, President Thwing notified the faculty of the College of Dentistry of Western Reserve University of an offer of transfer. The faculty voted to approve this, to accept the students, with full credit for the sessions they had completed, and to negotiate the matter of compensation for the equipment. Thus it is historically correct to say that the College of Dentistry of Western Reserve University absorbed its rival school, and, if the method of dating sometimes used were followed here, the date of the origin of its rival and oldest component would be adopted as a date of its own origin, namely July, 1891.

Of the twenty-three students attending the Dental Department of the Cleveland University of Medicine and Surgery in 1895-96, six graduated at the end of the session. Of the remaining seventeen, twelve transferred to the College of Dentistry of Western Reserve University and were graduated. Three others were graduated from other dental schools, and one transferred to a medical school and was graduated. Only one of these students failed to continue in either dentistry or medicine.

Appendix III shows that of the fifty-five students in this dental school, forty-eight entered practice in the dental or medical professions. Information about the careers of the remaining seven is lacking. Perhaps some of these, also, may have entered professional practice.

With the demise of the Dental Department of the Cleveland University of Medicine and Surgery there passed into history an

institution conducted by sincere men whose regard for dental education was deep and who were willing to make effort and sacrifice to promote their profession. The termination of the venture was due to a series of circumstances and relations over which these men had no control and which they could not remedy.

CHAPTER V

THE FOUNDING AND THE FIRST FACULTY

On August 29, 1890, Charles Franklin Thwing was elected President of Western Reserve University. He began service November 9, 1890, and was inaugurated on February 4, 1891. He found a university with a college for men, a college for women, a medical school, and loose affiliations with an art school and with a conservatory of music. He believed that fulfillment of obligations of the institution to the community called for an enlargement of the university family by the establishment of schools for other professions.

The trustees were not enthusiastic about expansion of the responsibilities of the university, but consented to moderate expansion if such action did not incur further financial obligations upon the trustees. Upon President Thwing was placed the burden of finding additional financial support for any new departments.

Inasmuch as law was named in the university charter of 1884, and since the founding of a law school had been considered by leading members of the local bar since the closing of Cleveland's first school, the Union Law School, fifteen years before, the organization of a law school in the university was the first expansion undertaken.

On May 29, 1891, the trustees voted authorization of such a school. A gift of \$50,000 as a memorial to a former Cleveland attorney permitted its establishment, and it was opened for students in September, 1892, on the same day as the dental school.

President Thwing believed that the trustees would be more likely to favor a dental school if the initiative were taken by the medical faculty, since a dental school, if founded, must be closely connected with the medical school. After several conferences with individuals in the late months of 1891, President Thwing brought the question to the medical faculty, and the records of January 15, 1892, carry the following minute: "Voted that a dental department be organized and that Dr. C. R. Butler be invited

to cooperate with the committee in securing a faculty and equipping a dental department."

Two major influences impelled the medical faculty to favor establishment of a dental school in January, 1892, in spite of the fact already noted that only five months earlier the dean of the medical faculty had stated that in his opinion there was little likelihood of such action. The desires of President Thwing influenced the medical faculty, as well as the fact that the Homeopathic Hospital College had put a dental school into operation four months before. For over forty years regular medicine and homeopathy had been educational rivals in Cleveland. To have the homeopathic medical school engage in dental education unopposed meant not only a gain for homeopathy in local prestige, but also the training of men for the associated profession of dentistry under auspices that would tend to make them sympathetic with the homeopathic doctrine in medicine.

The choice of Charles Richard Butler to lead the organization was based on personal and professional reasons rather than on former educational experience. He had been graduated in course from both dental and medical schools, each of high reputation, and so had the best professional education then current. After graduation from the Pennsylvania College of Dental Surgery in 1858 he had begun dental practice in Cleveland. Following service in the Civil War he had attended the Medical Department of Western Reserve College for one session and received the degree of Doctor of Medicine in 1865. He was a member of various dental societies in Ohio and other states and had been president of the Cleveland Dental Society, of the Ohio State Dental Society, and but recently (1888-89) was president of the American Dental Association. In 1892, with a large practice among the "best families" of Cleveland and with the prestige of the recent presidency of the American Dental Association, he was the leading dentist of Cleveland. Being a graduate in medicine and an alumnus of Western Reserve, he was acceptable to the medical faculty as the leader of the new venture.

Dr. Butler brought to his position maturity of judgment and long experience in his profession and in the activities of its

societies, together with wide acquaintance in the dental profession. He was a man of dignified and commanding personality, but not a ready speaker nor a good lecturer. He had no experience in educational administration nor any experience in teaching except as a preceptor. The statement in Ambler's *History of Dentistry in Cleveland* that Dr. Butler had held a professorship in the Ohio College of Dental Surgery is not borne out by the catalogues nor the records of that institution, although in the 'sixties he did give some short series of lectures there.

In late January, following the action of the medical faculty, Dr. Thwing consulted with Dr. Butler. Then followed a series of interviews. In early February Dr. Butler conferred with Dr. Herbert F. Harvey, who suggested that Dr. Will H. Whitslar be consulted. He, in turn, suggested Dr. George H. Wilson. These three men, all graduates of the College of Dental Surgery of the University of Michigan, were members of the teaching staff of the Dental Department of the Homeopathic Hospital College, then approaching the end of its first year of operation.

Acting upon the recommendation of the medical faculty, the trustees, in their meeting of March 2, 1892, referred the matter "to the President with power to act if needed money can be raised." Three days after this authorization, upon the invitation of President Thwing, Dr. Harvey, Dr. Whitslar, and Dr. Wilson met with Dr. Butler at his office at five o'clock March 5, 1892.

President Thwing stated that the university contemplated opening a dental school and that the gentlemen present had been selected to inaugurate the venture. He asked what sum of money would be essential to start such a school to be housed in the medical school building. The difference in the initial cost of equipment for a dental school then and now is illustrated by Dr. Butler's reply that ten thousand dollars would be needed. President Thwing stated that it was his opinion that this amount could be raised, though with difficulty. Details of organization were then discussed for an hour. Before the conference closed it was indicated that Dr. Butler would be expected to serve as dean and Dr. Whitslar as secretary if a faculty were formed and a school organized.

On the evening of the same day and at the same place the four dental gentlemen continued the conference and the course of study was discussed. It was agreed that a high standard of education should be sought. Knowing that additional men would be needed for the proper conduct of the teaching services of a dental school, they discussed additions to the teaching staff and decided to invite Dr. David R. Jennings, Dr. John R. Owens, Dr. Charles Buffet, Dr. Henry L. Ambler, Dr. Seymour B. Dewey, all local men, and Dr. Corydon Palmer of Warren, Ohio, to assist in teaching. For various reasons Dr. Buffet, Dr. Dewey, and Dr. Palmer declined the invitation.

On March 8th, three of the four gentlemen of the original conference, with President Thwing, inspected the medical school building with a view to adapting the unfinished fourth floor for dental instruction. Dr. Butler was unable to participate in the visit, having contracted a severe cold which developed into influenza. This incapacitated him for many months and he was unable to do active work in the school until the closing weeks of the session. The first catalogue issued in January, 1893, carried, opposite his name, the following statement: "By reason of prolonged illness excused from service." However, he was a constant and consistent adviser in the organization and conduct of the school until the close of the first session, when he felt compelled to resign from the faculty on account of his health. He continued to practice in Cleveland for many years and died while on a trip to Minneapolis, December 15, 1914, at the age of eighty-two years.

With the illness of Dean Butler, the duties of administration fell largely upon Dr. Whitslar. From March to September, 1892, these duties included supervision of the finishing of the rooms in the medical college building, purchase of equipment, arrangement of curriculum, publishing of announcements, and correspondence. When the school opened, there were the duties of matriculation, fees, schedule, records, and general oversight of instruction. In addition, he was superintendent of the clinic and professor of dental histology and pathology. The great burden that he carried in the first year of the history of the school is

difficult to appreciate, but the successful launching of the Dental Department of Western Reserve University was in large degree his accomplishment. For all of this he received a stipend of \$600.

The minutes of the trustees for June 21, 1892, show that the following eight dental members of a teaching staff to inaugurate instruction in September, 1892, were elected: Charles R. Butler, D.D.S., M.D., Professor of Operative and Clinical Dentistry; Will H. Whitslar, D.D.S., M.D., Professor of Dental Anatomy and Pathology; George H. Wilson, D.D.S., Professor of Prosthetics and Metallurgy; Herbert F. Harvey, D.D.S., Orthodontia; David R. Jennings, D.D.S., Special Operative Dentistry; John R. Owens, D.D.S., Anesthetics; Henry L. Ambler, A.M., D.D.S., M.D., Dental Hygiene; John W. Van Doorn, D.D.S., Materia Medica and Dental Therapeutics.

The minutes carry no title of rank for the last five names, but it was understood that they should rank as lecturers, a title that was then next below that of professor.

The success or failure of any new educational venture largely rests with the men who guide its early years and weave into the institution much of their training, their ideals, and their hopes. We must, therefore, consider something of the qualifications of this group of men who constituted the first teaching staff.

With the exception of Dr. Jennings, each of these eight men had attended two sessions and graduated from a school that at that time ranked high among dental schools. These seven graduates represented five dental schools. Three of them, after graduation in dentistry, had attended one session at a good medical school and earned the degree of M.D. on a plan that was usual at that time. These men represented three different medical schools. Dr. Jennings had studied dentistry under a preceptor and sometime later received the honorary degree of D.D.S. from the Ohio College of Dental Surgery. (The statement that he also had an honorary degree of M.D. from Wooster University is not borne out by the records of that institution.) Therefore the members of the group were professionally well educated. Only one had graduated from a college of arts, and one other had spent two years in such a college.

The average age of the group was forty-two years, ranging from sixty years for Dean Butler to twenty-nine years for Dr. Van Doorn. Each had practiced dentistry for from two to forty-four years. In proportion to his age each was active in dental societies, and each was well and favorably known in the dental profession. However, the teaching experience of the group was meager. Only three had taught in a dental school, and these only for a single previous session in the local school. One man, twenty-three years before, had lectured on dentistry in a medical school. The three older men, Dr. Butler, Dr. Jennings, and Dr. Ambler, had served as preceptors to apprentices in their offices. Only one, Dr. Whitslar, had come with any experience in administration of an educational institution and that for only one session. Notwithstanding inexperience in teaching, this group constituted potentially a strong teaching staff.

Reference has been made to Dean Butler and to his professional and personal qualifications, but because of illness he was able to participate in teaching for only the final few weeks of the first session and therefore had little influence upon the students.

The title of special lecturer given to Dr. Jennings indicates that not much teaching was expected from him. As a matter of fact, he did none at all. His appointment was made because of his high standing in the profession and in the community. He was a nominal member of the faculty until his death in Cleveland October 29, 1897, at the age of sixty-seven years, but the faculty records show that he rarely attended faculty meetings, and the recollection of other teachers is that he did no teaching. His influence upon the school is, consequently, negligible.

Dr. Herbert F. Harvey, a native of New York State, had been engaged in making instruments of precision before he had begun the study of dentistry. This experience made him adept in niceties of technique. His general education was above the average for that period. After graduation in dentistry at the University of Michigan he had begun practice in Cleveland.

He had much initiative and invented several dental appliances and instruments. He had a fine personality and was a highly competent dentist. He was also a good teacher, but be-

cause his subject, orthodontia, was just entering its modern phase, the place it held in the dental curriculum was minor and his opportunity to influence the students was, therefore, not great. However, he was helpful in determining the policies of the school. After four years on the teaching staff, he resigned in 1896 at the end of the first period of the school. He continued to practice until 1924, when he retired. His death came December 26, 1929, in Cleveland, when he was seventy-nine years of age.

Dr. John Ralph Owens was born in 1853 in Iowa. He was graduated from high school and business college and in 1875 from the Philadelphia Dental College. He had begun practice in Cleveland in the same year. He was active in dental societies, being a charter member of the Cleveland Dental Society and president of both the local societies and a member of the State Board of Dental Examiners. By 1892 he had reached a high position in the local profession. He devised several new procedures in practice. Having charge of the teaching in anesthesia he proved a capable instructor and impressed upon students the necessity of careful technique in this phase of dentistry. He was little active in the policies of the school. After nine years of successful work in the school he resigned in 1901, but continued to practice in Cleveland until 1925 when he retired. He had practiced fifty years. At present (1940) at the age of eighty-seven he is the oldest dentist in Cleveland, still active in the dental society and in other organizations of a scholarly nature, and is looked upon as dentistry's grand old man in Cleveland.

Dr. John William Van Doorn, a native of Cleveland, had attended Adelbert College two years before beginning the study of dentistry; he was graduated at the New York Dental College in 1890. He then practiced in San Francisco for over a year, and he had just begun practice in Cleveland when the dental school was organized. He was the youngest man on the first teaching staff and the most recent out of dental school.

For four years he served as lecturer on materia medica and therapeutics and then was made professor of dental medicine, in which position he served nine years until his resignation in 1905. During the last two years of this period his title was professor of

materia medica and therapeutics. After an interval of a year he was reappointed and served two more years in the same position, so that his service on the teaching staff covered a total of fifteen years.

Dr. Van Doorn was a diligent student of his subject and a careful and forceful teacher. His teaching had large influence upon the students over a long period of time. He was also helpful in matters of policy. After retiring from activities in the school he continued to practice in Cleveland until his retirement in 1928. In 1940 he is living in Cleveland and is seventy-six years of age.

Dr. Henry Lovejoy Ambler was born in northern Ohio into a family several of whose members had entered dentistry. He had been graduated from Hillsdale College with the degree of B.S. in 1864, and immediately had begun to study dentistry with his uncle, Dr. Nathan Hardy Ambler in Cleveland. In 1867 he had been graduated from the Ohio College of Dental Surgery. The next session he had attended the Western Homeopathic Medical College in Cleveland and had received the M.D. degree in 1868. The two following sessions he had lectured on oral surgery and dentistry in that medical school. He practiced dentistry in Cleveland from 1867 until about 1886, when he moved to New Hampshire. After six years he returned, just as the Dental Department of Western Reserve University was being organized. He introduced several new devices of practice and published a considerable number of articles on dental subjects and a book on the history of Cleveland dentistry. He had given considerable attention to oral hygiene, a subject then little taught or considered, and was chosen to lecture upon this subject as a member of the first teaching staff.

Of this first teaching staff the two who beyond all others impressed their ideals upon the school during its first decade were Dr. Whitslar and Dr. Wilson. Both gave much more of their time to the school than any of the other men and therefore had more contact with the students. Furthermore, each had a large part in organizing the school and carrying out its policies.

Both were sons of well-known dentists of northern Ohio.

Both, as was also Dr. Harvey, were graduates of the College of Dental Surgery of the University of Michigan, the best school west of the Alleghenies, whose leader was Dr. Jonathan Taft, the outstanding American dentist of the latter nineteenth century. Thus it came about that the policies in successful operation at Michigan much influenced those of the early years of Western Reserve. Dr. Whitslar and Dr. Wilson consulted frequently with Dr. Taft and profitably received his advice based upon over twenty years of successful experience in teaching and administration in two dental schools.

Dr. Will Henry Whitslar was born in Youngstown, Ohio, was graduated from the local high school, and had entered a pharmacy, where he worked for three years. He had begun the study of dentistry with his father, and had been graduated in dentistry at the University of Michigan in 1885. In 1886 he had been graduated in medicine at Rush Medical College. He then had practiced in Youngstown for five years. In 1891 he was called to Cleveland to become dean and organize the Dental Department of the Homeopathic Hospital College. At the organization of the Dental Department of Western Reserve University he became professor and secretary, which position he held for twelve years. He was the dynamic force in the school until his resignation in 1904. His training in pharmacy, dentistry, and medicine gave him a broad interest in therapeutics, anatomy, histology, embryology, and pathology. He was a diligent student and an effective teacher. With high ideals, excellent training, and tremendous energy, his influence upon the early history of the school was great and of a high order.

When, in the early years of the third era, there arose a need difficult to meet, Dr. Whitslar, in 1920, was recalled to teaching duties after an interval of sixteen years and again gave to the school not only service in instruction, but the inspiration of high morale to both teachers and students. He served until his death in Cleveland, December 11, 1930, when he was sixty-eight years of age. His total teaching service in Cleveland dental schools was twenty-three years. For thirty-nine years he carried a high grade of dental practice and was active in dental societies, being

president of the Cleveland, the Northern Ohio, and the Ohio State Dental Societies and Vice-President of the National Institute of Dental Pedagogics. He contributed to dental journals and for a time was assistant editor of one of them.

Dr. George Henry Wilson was born in Painesville, Ohio, and had been graduated in dentistry at the University of Michigan in 1875. He was active in dental societies local, state, and national, and in 1887 had been president of the Northern Ohio Dental Society. He had practiced in his native town until he came to Cleveland in 1891 as a member of the teaching staff of the Dental Department of the Homeopathic Hospital College. On the faculty of the Dental Department of Western Reserve University he was superintendent of the technic laboratories, and of the prosthetic clinic, and was professor of prosthetics and metallurgy, which included crown and bridge work.

He had a charming personality and, through intimate contact with the students, he influenced them toward meticulous care and accuracy. Rapidly he gained repute as an efficient teacher. He developed his subject along new lines that led to the publication, in 1911, of a textbook on Dental Prosthetics which became a standard text throughout the country.

He had resigned his professorship in 1905, but in 1920 was recalled to teach for a single year, after which he was made emeritus professor. His teaching career totaled fifteen years.

In 1892 he began practice in Cleveland and after 1896 restricted his practice to prosthetics, retaining his place as leader in the field until his death in Cleveland April 12, 1922, when he was sixty-seven years old.

Having sketched the important events preliminary to and in connection with the founding of the School of Dentistry, and having briefly mentioned some of the attainments and characteristics of the members of the first faculty, we shall now proceed to this history of the school itself through nearly half a century. This will be considered first chronologically, and then several special features will be discussed.

CHAPTER VI

THE MEDICAL SCHOOL ERA: FIRST PERIOD 1892-96

The history of the School of Dentistry of Western Reserve University falls into three distinct eras. The first of these, comprising fourteen years, is characterized by its relations as a protégé of the medical school. During the second, or affiliation era of eleven years, the university had little control over the private organization which operated the school. The university era, which began with the twenty-sixth year in 1917, is characterized by full university relations on the same basis as the other professional schools. The medical school era is divided by a change of locations of the dental instruction at the end of the fourth year into two periods.

The first era began with the closest interrelation between the medical department and the dental department, but soon this relationship lessened, until after eleven years almost complete separation resulted. After careful study of all the factors it appears conclusive that the major difficulties of the dental department and its decline in the later years of this era, followed by the subsequent regrettable second era, resulted primarily from the withdrawal by the medical faculty of cordial cooperation in the teaching of dentistry. However meritorious were the new policies of the medical faculty that led to this withdrawal and however valid the reasons for the abandonment of the dental school, yet the fact remains that the initial causes of the decline of the dental department lay in changes of policy in the medical department, accompanied by the inability on the part of the university to provide an efficient substitute for the loss of the close interrelation contemplated when the dental department was organized at the suggestion and under the direction of the medical faculty, as a department of the medical school.

Since this is the key to understanding the entire history of the present School of Dentistry, it is necessary to follow in considerable detail the several steps in this dissociation and the causes of changes of policy which led to the separation. This

necessitates the consideration of certain events in the history of the medical school.

The First Year (1892-93)

The formal organization of the dental department dates from June 21, 1892, when the trustees of the university elected the eight gentlemen whose names were listed in the previous chapter to constitute the first dental teaching staff. However, between March 2, 1892, when the trustees authorized the organization of a dental school, and June 21, 1892, when the election of a faculty occurred, there were certain events which, in effect, belong to the first year of the school's history.

On March 8, 1892, President Thwing and Dr. Harvey, Dr. Whitslar, and Dr. Wilson visited the medical school building to inspect the space available for the use of the dental school. The unoccupied space was two rooms, each eighty by thirty-two feet, on the fourth floor. These were unplastered and without water, gas, heat, or sewer connections. Within a few weeks Mr. John Lund Woods, the donor of the building, agreed to pay for the finishing of these rooms. The cost was approximately two thousand dollars, and this sum was reported by the university treasurer in June, 1893, among "donations to the dental school."

Four years later, when the dental school moved from the medical school building to other quarters, this contribution was the cause of controversy. The dental faculty called attention to the fact that this "donation to the dental school" had been expended upon the finishing of rooms which the medical school was about to enjoy and to occupy solely for teaching medical students, and that the building improvements resulting from this donation could not be carried to the new location of the dental school. The dental faculty held that therefore the medical school should reimburse the dental school to the amount of two thousand dollars, this money to be used in equipping the new quarters. The reply of the medical faculty was that this amount would be applied as "rent" which the dental school had not paid.

Both were wrong. Mr. Woods had consented to complete in these certain particulars the uncompleted building which he

had given in 1887 to the university for the use of the medical department, dental education not being contemplated in 1887. Hence this two thousand dollars was not a "donation to the dental school." The medical faculty had invited the establishment of a dental department in its own building and was no more justified in charging rent than it would have been in making a similar charge against the department of anatomy.

The source of this thesis of financial demands upon the dental department is clear. From the origin of the medical school in 1843 its officers had not only received all fees, but made all disbursements, through one who was called registrar and treasurer. After the formation of the university in 1884, since Adelbert College was under a different charter, the medical school was, until 1888, the only unit. The control of the funds of the medical department by the medical faculty was not approved by the university trustees, but the medical faculty contended that the functions of the registrar were too technical to be carried on by the university treasurer and that it was "impossible to divorce these two functions." The amounts were not large, in no year being more than \$10,500.

When the dental department was in process of organization, and before any member of the dental faculty had received official appointment, the officers of the medical faculty contended that the fees from dental students should be paid to the registrar of the medical school, but the trustees ruled that such fees should go to the university treasurer. The dental men accepted the ruling. The medical men accused the dental men of disloyalty in that they failed to support the contention that the medical school was financially autonomous. Thus the dental school, before it was officially born, became involved in the eight-year old contention between the trustees and the medical faculty. By 1889 this contention had reached a stage where the medical faculty voted that the president of the university had no right to attend its meetings, and only after opinions of high legal authority was he admitted.

The medical faculty took the position that if the funds of the new dental department were not to come to the medical faculty

the dental school should be charged for various common services, although the dental department was a part of the medical school and no other department of the medical school was so charged. The development of this idea was one of two major factors that resulted eleven years later in the divorce of these two schools.

A committee of the medical faculty attempted to make some adjustment as to the share of expense that the new dental department should bear. The medical faculty minutes of May 23, 1892, four months before dental instruction began, contain the following paragraphs: "After a report of the Committee on the Dental Department that they could find no satisfactory basis upon which to apportion the expenses of that department and their obligations to the medical faculty, the following resolution was adopted: Resolved that the Dental Department, after paying a reasonable proportion of the expenses for heating and janitor service and for hospital and dissecting tickets and materials used in dissections and laboratories, be permitted to distribute the funds as they may see fit. Voted to enter into this relation for one year from date."

In May, 1892, there was issued a preliminary announcement of the organization of a dental department to be located in the medical school building. It stated that "every equipment necessary will be provided," and, further, that "the course of study will be in conjunction with medical studies."

The work of finishing the rooms for dental instruction began about May 1st. On July 12, 1892, the first meeting of the dental faculty elected on June 21st was held. It was attended by President Thwing and six of the eight elected members, Dr. Jennings and Dr. Van Doorn not being recorded as present. At this meeting delegates were appointed to the National Association of Dental Faculties, with a view to applying for membership in that body. Since the rules of that association provided that application would be received from no school that had been in operation less than one year, application could not be made until the 1893 meeting and then must lay over another year for action. The Dental Department of Western Reserve University was elected to membership in 1894, the earliest date possible.

When, at the preliminary conference of March 5, 1892, Dr. Butler gave, as the opinion of himself and his associates, that ten thousand dollars would be required to equip a dental school for instruction, he referred to the peculiar equipment needed for the dental subjects, assuming that equipment needed for subjects common to both dental and medical curricula would be provided by the medical department. He also assumed that the rooms were ready to receive their equipment.

President Thwing's statement at the same time that he believed that ten thousand dollars could be secured, though with difficulty, was an opinion, not a guarantee. In fact the report of the university treasurer for June, 1893, shows the total of subscriptions to be \$3,927.23. Of this amount \$2,650 came from six named individuals, four of whom were trustees. No dentist was among the named contributors. The largest contribution was the \$2,000 from Mr. John L. Woods for finishing the rooms. The remaining \$1,277.23 come from an unstated number of unnamed individuals.

On the evening of August 24, 1892, President Thwing assembled at dinner the combined dental and medical faculties to discuss details of instruction to dental students and to prepare for the opening of the school. It was there reported that rooms and equipment would be ready two weeks before the announced date of opening.

When the rooms had been made ready an amount of less than two thousand dollars remained with which to purchase meager equipment. The financial depression of 1893 was beginning and was in part the cause of this great deficiency from the needed ten thousand dollars. The equipment was so meager that for several succeeding years, as the number of students increased, additional equipment had to be purchased out of the small current income from fees of students and patients.

Inquiries and applications from students followed but slowly the issue of the preliminary announcement in May, 1892. The first matriculant was a freshman, Mr. Percy Overwert Parsons, who was graduated in 1895. On the opening day nineteen freshmen and two juniors, but no seniors, had matriculated. In this

first year there was but one transfer from the Dental Department of the Homeopathic Hospital College, where, in comparison with the new, rival dental school's twenty-one, only twelve students had enrolled for the session of 1892-93.

During the first year the dental students were taught several subjects in the same classes with medical students, not only those called the medical sciences, but also such others as *materia medica* and therapeutics. Had any seniors enrolled, their schedules would have taken them into medical classes in the subjects of medicine, surgery, and bandaging.

The entrance requirements were exactly the same for admission to the dental as to the medical school, the minimum being that indefinite "good English education" evidenced by an examination usually more perfunctory than real. As a matter of fact, the records of 1892-93 show that several medical students were admitted "by examination," but no dental students were so admitted, most of them being high school graduates and none having less than two years of high school education. There was, therefore, no disparity in preliminary education, and medical and dental students could be taught in the same classes without disadvantage to either. The number and length of sessions were also identical for students seeking either degree. This educational equality was the keystone of the close cooperation of the medical and dental faculties in the beginning, and was the thesis upon which this dental school was founded.

The preliminary announcement issued in May, 1892, and the first catalogue printed in January, 1893, were both prepared by the joint efforts of the secretaries of the dental and medical faculties. The opening general statement in each is:

The dental department of the Western Reserve University was organized by the trustees and medical faculty of the University. They believe the practice of dental surgery should be made a department of medicine and they will endeavor to educate men to practice dental surgery as a specialty of medicine.

The students will therefore receive thorough instruction in the same classes with the medical students upon those subjects which are of value to them.

Undoubtedly this statement expressed the opinions of the two faculties of the session of 1892-93. It was carried in the catalogues of the School of Dentistry until the issue of January, 1895, when the statement regarding the joint teaching of students was omitted and the wording of the first paragraph was modified.

In 1893 there were no graduates, but the diplomas prepared and used for the classes graduating from 1894 to 1901 inclusive indicate the relation of the instruction in dentistry to the medical school in the following words:

WESTERN RESERVE UNIVERSITY

Medical Department

College of Dentistry

To all to whom these Presents may come Greeting.

Be it known that whereas _____ has completed the required Course of Study in the General Medical Sciences and particularly in the Theory and Practice of Dental Surgery the degree of

DOCTOR OF DENTAL SURGERY

is hereby conferred upon him with all the honors and immunities pertaining thereto.

During the first year the dean and secretary of the dental faculty were invited to attend the medical faculty meetings; and the records of the medical faculty show that on March 4, 1893, the end of the first year, all members of the dental faculty were invited to attend the medical faculty meetings. Reciprocally, the dean and secretary of the medical faculty were invited to attend the dental faculty meetings. These and many other conditions of record, as well as the personal recollections of men who participated, show the close and cordial interrelations between these two professional schools of Western Reserve University during the first year. Soon the series of steps by which this cordial relation was destroyed will be pointed out.

On a day in April which is not exactly recorded, Dean Butler, on account of ill health, resigned his professorship and deanship. He was present at the dental faculty meeting of April 12th, and at the medical faculty meeting of April 20th President

Thwing announced his resignation from both posts. At the next dental faculty meeting Dr. Ambler was nominated as professor of operative dentistry to succeed Dr. Butler, and in June he was elected by the trustees.

Two years of successful administrative experience made Dr. Whitslar the logical choice for the deanship in spite of the fact that he was but thirty-one years old. The position was offered to him, but he declined because he was starting practice and did not feel that he could devote the necessary time to such duties.

Thereupon Dr. Ambler was appointed. His choice was due to several factors. In age he was the senior of the dental men on the faculty. He had broader and more extensive education than any of the others. He had an established practice and his financial situation was such that he could give time to the deanship. Furthermore, he was recommended by Dr. Butler. The fact that he was a graduate in medicine as well as in dentistry should have made him acceptable to the medical faculty, but his early relation to homeopathy lessened their confidence in him. The local homeopaths, still conducting their dental school, boasted that their rival regular medical school found that a graduate in homeopathy was the best man for dean of their dental department.

Dr. Ambler continued on the faculty until 1907, giving sixteen years of teaching service during which time he served fifteen years as dean. Until his last year he was professor of operative dentistry and also taught oral hygiene and dental history. In the last year he was professor of history of dentistry and of oral hygiene. After he resigned from the faculty he continued to practice in Cleveland and to participate in dental society activities until his death in Cleveland, June 14, 1924, at the age of eighty-one years.

As a teacher he was rather more painstaking and accurate than comprehensive. He was conservative and methodical. He gave much attention to niceties of diction in dental terms and emphasized accuracy through improvement of familiar procedures rather than through the adoption of new methods. Small in stature, he lacked the commanding personality desirable for

an administrator. He was timid, hesitant, and procrastinating, and as a result, the greater part of the administrative duties fell to other officers, but his calm demeanor and suavity were helpful at critical moments. His influence in the school had the effect of emphasizing details rather than broad principles.

The Second Year (1893-94)

In April, 1893, arose the question of the renewal of the expense arrangement adopted by the medical faculty in May, 1892. The medical faculty again requested that the receipts of the College of Dentistry pass into the hands of the registrar of the medical faculty, but the dental faculty refused and adopted the following resolution: "That the Dental Faculty handle its finances, having its own Treasurer, and that the Medical Faculty be paid for running expenses of the building two hundred dollars, or a proper proportion of expenses on the basis of last year's decision." Thus the two faculties continued their disagreement in the handling of the dental school funds.

But more momentous developments were at hand. On December 23, 1892, Mr. John L. Woods, the donor in 1887 of the medical school building, gave to the university trustees \$125,000 as an endowment, the income of which was to be devoted to the maintenance of the medical school building and to teaching and research in four named medical science subjects. This was one of the early endowments for medical education in the United States. It was a great help to the medical school, but spelled doom for the dental school because of attendant changes in policy which separated its standards from those possible in the dental school so that soon dental students could no longer be taught in the same classes with medical students. Subsequently the dental school had to establish its own courses and later its own laboratories in the medical sciences. Its resources did not permit this to be done efficiently, and a condition arose which was unforeseen when the dental school was founded.

In 1892-93 the income from medical students had increased to \$17,000, of which \$5,655.99 is recorded for distribution to the medical teachers. In some earlier years such sums are recorded

as "profit for distribution." The officers of the medical faculty now contended that they should handle not only the receipts from student fees, but that they should also receive the proceeds of the new endowment and handle its disbursement. There could be but one decision on the part of the university trustees. Along with their denial of this contention, they ruled that all receipts, including those from student fees, should pass through the hands of the university treasurer.

This culmination of the nine-year controversy between trustees and medical faculty, together with questions as to appointments on the medical faculty and other minor factors, some personal and some impersonal, brought about the resignations of the dean and secretary of the medical faculty in the early summer of 1893, and shortly after, the resignations of the professors of ophthalmology, of anatomy, and of genito-urinary diseases; these five gentlemen joined the faculty of the rival local medical school. The resignations of the men who had controlled the medical faculty for twelve years ushered in a series of events that had great influence upon the fortunes of these two professional schools—events leading to renown for the medical school, but to decline for the College of Dentistry affecting its welfare for many years.

To the vacant deanship the trustees elected the professor of pathology and a new office of vice-dean and chairman of the administrative committee was created. To this was elected the man who had been professor of physiology in the previous year, but now transferred to a professorship in a clinical subject. By these appointments the leadership of the medical faculty was transferred from men with clinical interests to those with laboratory interests. A man was brought from a distant school to the professorship of anatomy and another came from Europe to fill the professorship of physiology for a single year.

To provide for these additional salaries it was decided that in the medical faculty only men teaching laboratory subjects should receive salaries. The clinical teachers on the medical faculty gave up their small stipends and for many years no teacher of a clinical subject received remuneration, a condition that has con-

tinued in part to the present time. This generous act in 1893 was a major factor in the success of the medical school. These clinical men were able to appeal for funds with better grace since they themselves received no financial return. Unselfish devotion of the clinical teachers of the medical faculty has not received the recognition from the salaried members of that faculty that it deserves. None of the new group of men who had come into control had been officials at the time of the origin of the dental department a year before.

With the opening of the new school year Dr. John F. Stephan, who had been instructor in crown and bridge in the Dental Department of the Homeopathic Hospital College the year before, joined the teaching staff as lecturer on operative technics. He was secretary of the National School of Dental Technics that has just been organized, a position he occupied for six years. This society aimed to improve the teaching in dental anatomy and technics, and in 1893-94 Dr. Stephan made what is believed to be the first set of models and molds of the teeth; these molds are still in existence. Dr. Stephan proved an excellent teacher and in 1896 was promoted to the title of professor of operative technics. He resigned in 1901.

The enrollment of dental students increased by nearly a half. During this second year the dental students continued to be taught in the same classes with medical students, but new policies arising from the prosperity of the medical school brought increasing disparity between these two closely associated professional schools. At the end of this second session the first class of four men was graduated, and the exercises were held in common with the Medical Department on February 28, 1894.

This was the first and last time that the two schools joined in a commencement. In 1895, because the length of session was different, the dental school held its commencement on March 5th and the medical school on May 22nd. Beginning in 1896 the graduation exercises of the dental and medical classes were held on successive evenings in May, the earlier cordial relations disappearing to the point that graduates of the two schools were unwilling to appear on a common commencement platform.

This continued until June 1899, when the College of Dentistry joined in the university commencement.

In the early months of 1894 the medical faculty began to discuss the addition of more men to full time faculty appointments for the year 1894-95, and the extension of the medical course. On May 22, 1894, they voted to adopt a four-session course to be optional for medical students entering in September 1895 and required for those entering in September 1896. Election of an associate professor of pathology was recommended in July 1894. The termination of the service of the temporary professor of physiology and the resignation of the professor of histology brought the selection of a professor of physiology and histology. Both of these men came from outside of Cleveland. A new position of instructor in pharmacology and therapeutics was created and a young man just returned from study in Europe elected.

Even with the sacrifice of remuneration on the part of the clinical teachers, the income from student fees and endowment did not promise to care for the enlarged expenditures for salaries of new men, prospective establishment of new laboratories, and extension of the medical course to four sessions. The medical faculty looked about for additional sources of income.

The records of the medical faculty show that on July 26, 1894, the following two votes were passed:

Voted to inform the trustees of the university that in the opinion of the medical faculty the space in the medical college building now occupied by the Dental Department will after this year be absolutely required for the work of the Medical Department.

Voted that the Dental Department be required to pay pro rata for their students in medical branches and for the space occupied in the building and that a committee...be appointed to arrange the matter.

Among the members of the dental faculty were two men who gave six half-days a week to teaching for which they received \$600 a year,—not \$1200 each as the medical faculty committee averred. Since these men were practicing dentistry in the time when they were not teaching, the committee of the medical

faculty asked them to renounce their salaries, as the clinical men of the medical faculty had done a year earlier, in order that the amount paid these two men might be paid by the dental school to the medical school for privileges in the medical building and in courses in the medical sciences. The two men declined to renounce their small salaries.

This refusal brought more definite division. The two situations were hardly parallel, for while the medical men teaching clinical subjects gave no more than two or three hours a week to this service, each of the dental men was devoting more than twenty-four hours a week to teaching, beside sharing responsibility for a laboratory course. Therefore these two were related to the class of the salaried men of the medical faculty.

There were also minor irritations that led to larger results. The medical faculty minutes of October 12, 1894, report that there had been an overflow of water into certain rooms through plaster entering the waste pipes of sinks in the dental laboratory. The next record is "Voted that a communication be sent to the trustees of the university expressing the sentiment that the medical faculty are dissatisfied to have the dental department located in this building and that it is the desire of this faculty that the next annual catalogue of the university should show that the two departments are not located in the same building or are associated." Thus did a plaster mole-hill quickly grow into an educational policy mountain.

The report of the committee of the medical faculty on financial arrangements between the two schools was made on October 29, 1894. It was to the effect that the dental department should pay additional expense incurred by their occupancy of the building to the extent of \$1,200 for the current year instead of \$200, the amount paid the previous year. The plaster may have influenced this increase of demands.

Unfortunately this payment was referred to in conversation as "rent," a word which proved to be irritating to both faculties for some years. This word was hardly in accord with the agreement of May 1892 concerning sharing of expense. So the report concluded by saying:

The solution of these problems can best be effected by dissolving all obligations, if any exist, with the Dental Faculty, and constitute the Dental College a Department of the Western Reserve University and not a protégé of this college and subject to no demands upon the same.

The committee fails to see why this College be called upon to subscribe to the Dental College any more than to the Law School or Adelbert College.

The medical faculty accepted the report, which seems to indicate defective vision, since the dental school was the child of the medical school.

Thus did the medical faculty, which less than three years before had originated the dental department and a year and a half before had invited all members of the dental faculty to attend its meetings, arrive at an attitude of disdain, renounce all responsibility for establishment of the dental school, and abrogate the agreements made at that time. With its greater prosperity through the endowment, it wished to disown the child it had begotten in less prosperous days when the dental school was looked upon as a distinct help to the medical school.

The dental school was unable to bear a share proportionate to the number of students in the total expense of the medical school. Its total income in 1893-94 was less than \$4,000 from which were provided materials, equipment, and janitor service, in addition to maintenance of dental subjects. It contributed directly to the medical budget a small sum. Indirectly it also contributed to the medical budget by paying small amounts ranging from \$200 to \$500 a year to increase the stipends of several of the salaried teachers of the medical faculty, for their teaching of dental students.

The Third Year (1894-95)

On August 4, 1894, the College of Dentistry was admitted to membership in the National Association of Dental Faculties, to which its local rival did not gain admission until a year later. This had some effect in attracting students, of whom fifty-three registered at the opening of the session of 1894-95, a fair increase

over thirty registrations in the previous year. This class contained the first matriculant who held an A.B. degree.

The schedule required daily clinical dental work of the seniors, and after January first the juniors entered the clinic. The equipment in the clinic in September 1892 included fifteen operating chairs. This had been quite sufficient in the first year with no seniors and but two juniors. In 1893-94, however, there were four seniors and sixteen juniors, and after January first there was no longer one chair for each student. In 1894-95 with seventeen seniors and eleven juniors entering the clinic in January, there would be less than one chair for every two students. It was apparent that more must be supplied.

The dental school had no source of income except student fees and fees from patients to provide its operating expense. The income from patients in 1892-93 was small and all was used to purchase supplies. In 1893-94 it was somewhat greater and there was a small operating balance of \$56.02 at the end of the year, but in the autumn of 1894 there were no funds for the additional capital expenditure of approximately \$1,000 for chairs.

The need was imperative. In the emergency President Thwing made a bank loan, not in his official capacity, but upon his personal obligation, with the hope that the income in a school then rapidly growing would soon permit discharge of the obligation, or that contributions would become available. But no contributions were received and there was an operating deficit of over \$200 for 1894-95. This was the initial step in a policy of borrowing for capital expenditures that led to increasing indebtedness, for it was impossible to establish any sinking fund to pay it off.

In this year dental students were taught in some of the same classes with medical students, but, because of lack of harmony in the schedules of the two schools, this could not be done in all subjects. In the summer of 1894 the medical faculty suddenly extended the length of the session from six to eight months, the change to be effective for the next entering class. In 1894-95 therefore, the medical freshmen had an eight-month session while the dental freshmen had a six-month session.

In first-year courses the dental students could be taught with medical students only in those medical courses that ended by March 1st, and this necessitated establishment of some courses especially for dental students. The disparity in length of session was removed when for the year 1895-96 both the dental session and the medical were extended to eight months for all classes.

Increase of the dental school's enrollment from thirty in 1893-94 to fifty-three in 1894-95, and the prospect of a larger attendance the next year, indicated the possibility of crowded conditions. Moreover, plans of the medical faculty made it evident that the dental school must soon move. At the meeting of the dental faculty on November 10, 1894 President Thwing stated that "it is almost imperative that we should have enlarged quarters." Thereupon began the series of considerations of new locations that is treated in detail in a later chapter.

There were other incentives to removal. Receipt of endowment by the medical school led to policies of expansion. The advance in the length of session, the announced increase in number of sessions, the changes in the medical faculty, all tended to enlarge the inequality between the two schools and to infringe upon the original cordiality of the two groups of students. The feeling of the medical faculty toward the dental school was not unknown to the medical students, and this helped to stimulate an attitude of disparagement by them toward the dental students. Some of the men on the medical teaching staff were not above sharing such an attitude.

Endeavor to find a new location was accelerated when the medical school, early in the session of 1894-95, decided to establish a laboratory of pharmacology for which no space was available except that occupied for teaching of dental subjects. A demand was made at the end of this session that half of the space in use by the dental school be released.

When the catalogue was issued in January 1895 the dental faculty felt so sure of immediately securing a new location that it was announced, "it is expected that a new building for the department will be completed before the beginning of the next

session." However, this expectation was not realized until twenty-two years later.

At the close of the session in March 1895 the dental school gave up the west room, occupied for three years by its technic laboratories, and in the summer of 1895 this room was equipped by the medical school as a pharmacology laboratory under the direction of Dr. John G. Spenzer.

For the first two years the dental school had carried all the medical faculty in its catalogue under a separate heading. In the catalogue of January 1895 a group of five names was carried under the caption, "Instruction is also given by the following members of the Faculty of Medicine." By this time the impending separation of the two schools was apparent. The statement that dental students were taught in the same classes with medical students was dropped from the catalogue and joint laboratory teaching was largely abandoned, although joint didactic instruction was continued. The medical school teachers were no longer willing to teach dental students as an ex-officio duty. Hence, the dental faculty proceeded to choose certain of the medical faculty for membership on the dental faculty.

At the meeting of the dental faculty on March 18, 1895 Dr. Carl A. Hamann, Dr. William T. Howard, Dr. George N. Stewart, and Dr. John G. Spenzer were nominated to professorships on the dental faculty. At the same meeting Dr. Louis P. Bethel, who had been on the faculty of the Dental Department of the Homeopathic Hospital College from 1891 to 1894 was nominated as assistant professor of bacteriology. All of these were elected by the trustees in June 1895 and since then the dental and medical faculties have been entirely separate organizations. Nevertheless, at all times some individuals have been concurrently members of both teaching staffs. During the greater part of the era of affiliation the concurrent members were few and these taught different subjects in the two schools. They were usually junior clinical men on the medical staff and lecturers or professors on the dental staff in some of the medical sciences.

On April 1, 1895 occurred the death of Dr. Isaac N. Himes, Professor of Pathology and dean of the medical faculty since

February 1894. Dr. Hunter H. Powell was appointed to the deanship.

To understand the cause of the rapid change in relations between the dental and medical faculties one needs only to review the changes in personnel of the medical faculty from January 1892 to September 1895. The dean and other officers of the medical faculty had changed twice, as had also the professor of physiology. Since June 1893 new incumbents had taken charge of anatomy, histology, physiology, pathology, bacteriology, and pharmacology. The latter taught chemistry to the dental students in 1895-96.

It was in the medical sciences that the medical school came into active relation to dental students, and by September 1895 all of these courses were in charge of new men brought from other cities. None of these had participated in the establishment of the dental department in 1892 and so did not share the sense of personal obligation to it. Indeed some did not know they were expected to teach dental students until after they arrived in Cleveland. Moreover, there were several new clinical men on the medical faculty.

A new regime had come into power in the medical school which had visions and plans and new policies. The former equality of standards in the two schools was soon to be changed to a wide disparity.

The Fourth Year (1895-96)

The plans for a new dental building, announced in the catalogue of January 1895, were not consummated, and in the early summer of 1895 a circular was sent out to follow the catalogue in which was the statement "Owing to our inability to complete a suitable building for the coming session we have decided to remain in our former quarters in the Medical Building for the winter."

The technic laboratory room had already been given up in anticipation of a new building. The faculty minutes of September 14, 1895 record that "a room at 179 Prospect Street has been secured for the dental laboratory for the year." Thus,

during 1895-96 the teaching quarters of the College of Dentistry were in two locations a quarter of a mile apart.

Beginning with this year the session was increased from six to eight months to conform to the length of session in the medical school. This year, for the first time, also, all the men in control of medical science subjects in the dental curriculum were voting members of the dental faculty.

In 1895-96 the number of dental students was one less than in the preceding year, and the entering class was smaller by five. This was correlated with an increase in the number of entering medical students from 42 in 1894-95 to 67 in 1895-96, for this was the last entering medical class which could graduate in three years. Entrance requirements for the two schools were still identical.

Consideration of a new building for the dental school terminated with the announcement at the faculty meeting of December 14, 1895, that a lease for five years had been taken on the upper two floors of the Bangor Building at 942 Prospect street.

The year 1895-96 was less auspicious than the previous year. The impending divorce from the medical school, the divided locations of the teaching facilities, and some minor factors tended to make this year one of temporizing rather than of advance. There was difficulty in getting sufficient numbers of clinical patients and consequently income was not up to expectations. The operating deficit for the year was nearly \$700, making the accumulated operating deficit over \$1,000. Payment on the bank loan made two years before to purchase equipment could not be made. The bright spot of this year was planning new quarters to be used at the beginning of the next session.

These four years ending with 1895-96, the period of location in the medical school building, had many features of success, but contained also some factors that, in the latter part of the next period, proved potent in the decline. An irreducible indebtedness was the chief of these.

During these four years the dental school had increased its minimum entrance requirements from that "good English ed-

ucation"—which meant less than completion of the grammar grades—to one year of high school training. But, in common with all other dental schools, it soon retreated from this increase, and did not attempt it again for three years.

The length of session had been increased from six months with twenty-two weeks of teaching to eight months with thirty-one weeks of teaching. Some subjects were added to the curriculum, and others were increased. There were additions to the teaching staff. The first laboratory course in bacteriology given in any dental curriculum in this country had been inaugurated. The enrollment had increased from twenty-one to over fifty. The confidence of the dental profession was increasing. Now, with assurance of larger quarters, better equipment, and a better location, prospects seemed favorable.

CHAPTER VII

THE MEDICAL SCHOOL ERA: SECOND PERIOD 1896-1906

The decade 1896 to 1906 was characterized by growing success in the first half and by a disastrous decline in the second half which resulted from two conditions carried over from the first period. The primary cause was the financial ogre evident in the first year and constantly growing. The real ebb of the tide came in 1903 when, because the College of Dentistry lacked resources to meet financial demands, the helpful relations of the medical school were almost terminated.

Fifth Year (1896-97)

Beginning in 1896 the designation Dental Department of Western Reserve University was abandoned. From 1896 to 1904 the designation was either Dental College or College of Dentistry, the former appearing in the text of the catalogues, but the latter on the covers. Beginning in 1904 the designation College of Dentistry became uniform and so continued until 1910 when the form School of Dentistry was adopted.

Several important occurrences marked the opening of the fifth year. There were changes in the teaching staff, increase in entrance requirements, change of location, increase in enrollment, and financial complications.

Dr. H. F. Harvey, lecturer on orthodontia since the origin of the school, resigned because of unsatisfactory salary conditions—a portent of occurrences with other teachers later. Dr. Calvin S. Case, a teacher in a Chicago dental school, lectured for a few weeks under the title of instructor in orthodontia. His lectures were primarily for students, but drew twenty-three members of the dental profession, the first instance in this institution of instruction for practitioners. Each year through 1901-02 he lectured on orthodontia. Dr. John G. Spenser, having in 1896 severed his connection with the university, Dr. Perry L. Hobbs resumed the teaching of chemistry which he had taught previously from 1892 to 1895. At this time Dr. Hobbs

became a member of the dental faculty. The first graduate of the school to enter the teaching staff began his service in this year when Dr. Charles Emery Hurd of the class of 1896 was made demonstrator of prosthetics.

The minimum entrance requirements were advanced to completion of one year of high school. A year later, in common with other members of the Association of Dental Faculties, this dental school retreated to the former standard of ability to enter a high school.

On October 3, 1896, it was voted to accept in advanced standing the students of the Dental Department of the Cleveland University of Medicine and Surgery which had just decided to close. Twelve of these students entered one or the other of the two upper classes of the College of Dentistry of Western Reserve University, which thereafter had no competitor in northern Ohio. With these and other men coming in advance standing, with slight increase in the number entering the first year class, the total attendance was 86 as compared with 52 in the previous year.

The most conspicuous occurrence of this year was the occupancy of the new location at 942 Prospect Street with more than two and a half times the space of the former quarters. Laboratory and clinical phases of subjects which, during the previous year, had been in two locations, were now united, and for the first time the College of Dentistry felt itself to be a distinct institution free to grow and to conduct its activities without disparagement and criticism. More extensive description of the new quarters is given in a later chapter.

This change of location, which was equally welcomed by the medical faculty, brought considerable expense for moving and for new equipment. There was not only no balance of school funds, but there was an accumulated operating deficit. In this second financial emergency President Thwing followed the policy inaugurated two years before and increased the bank loans, but this time not on his personal obligation. The university trustees did not furnish the funds, but they did lend their credit, with the dental budget carrying the interest. In his report to the trustees in June 1897 President Thwing said, "...the rooms

in which the Dental School is now located are admirably equipped for its service. These rooms have been fitted up at an expense of about \$3,500, which sum has been borrowed and the note of the university given." This made a total capital debt of about \$4,500 in addition to the accumulated operating deficit.

For courses in the medical sciences the dental students continued to go to the medical school. They were in separate classes except in histology where dental and medical students were taught together until 1901. That the dental faculty did not expect this affiliation to long continue is evident from the floor plans of the new quarters which provided for a laboratory for histology and bacteriology as well as one for chemistry. Complete autonomy from the medical school was hoped for if funds could be secured.

New quarters, new equipment, growing reputation brought the school, for this year and the next three years, more students than registered in any of the three other schools in the state except the Ohio College of Dental Surgery, then in its fifty-first year. The closing of the rival local school helped to secure almost the united good will and support of the local profession.

The teaching staff rejoiced in their independence and freedom from the medical faculty. In his report to the trustees in June 1897 the dean of the dental faculty said: "The session which closed May 17, 1897, was the most successful one during our history." The report of the secretary of the dental faculty says: "The clinic. . .increased wonderfully the past term, as the record of 5,218 operations against 1,908 last year shows."

Increase in number of students and clincial patients meant increased income, but it also meant increased expenditures, major items of which were annual rental of \$2,400 and interest on the bank loan, so that the year closed with a deficit of over \$600 in current operating expenses and an accumulated operating deficit of nearly \$1,700.

While the College of Dentistry had followed the Medical School in increasing the length of session from six to eight months, it could not follow in extending the number of sessions

to four. No dental school in the country had then a four-session course, nor did one until twenty-one years later.

When in 1898 the medical school announced that, beginning in 1901-02, it would require three years of college work for entrance, it was utterly hopeless for the College of Dentistry to attempt to follow in this advance. Only in 1896 had the standard of American dental schools risen to a requirement of high school entrance qualifications, and not until 1910 was high school graduation required.

Thus, in less than a decade these two schools had become so widely separated that the original thesis of teaching their students in the same classes in medical science subjects was annulled. This outcome shattered the plans upon which the dental department had been founded, since instruction of dental students in medical sciences could no longer be maintained at nominal expense.

In taking these rapidly successive advance steps the medical school followed the lead of Harvard and John Hopkins Medical Schools, each of which had much larger resources. In so doing it introduced fifteen years of trial and struggle which newcomers to the university neither know nor appreciate, but it brought prestige and stimulated hard work in both teaching and research to which the present reputation of the School of Medicine of Western Reserve University is largely due. Nevertheless, to the dental school it brought neglect in its most crucial years.

Sixth to Ninth Years (1897-1901)

On October 27, 1897, Dr. David R. Jennings died. He was sixty-seven years of age and had been on the list of the teaching staff for five years, although he had done no teaching. The records show his attendance at only one faculty meeting during his nominal membership on the staff, and hence his influence in the school was very slight.

In these years there were no major changes. The attendance increased slowly. There were some additions to the teaching staff, chiefly through appointment of recent graduates as demonstrators in the clinics and one or two local practitioners as

lecturers. These changes brought the dental faculty to ten professors, four lecturers, and five demonstrators in 1900-01.

At the beginning of 1900-01 Dr. Louis P. Bethel was promoted to the professorship of bacteriology, and a small laboratory with meager equipment was established in the dental quarters. For the next sixteen years this subject was taught in the dental building.

In 1899-1900 the minimum entrance requirements were increased to completion of one year in the high school, but most entrants had more than this minimum. The majority were high school graduates. Only men who had, apparently, a high degree of aptitude and good personality were accepted, in these years, with less than high school graduation.

There were some administrative changes. With the beginning of service of Dr. Benjamin L. Millikin as dean of the medical school in 1900, the post of executive officer was created by the trustees and attached to that deanship. The same office was established in the dental school, but there it was attached to the secretaryship of the faculty.

At the end of the session of 1899-1900 Dr. W. H. Whitslar relinquished his post as superintendent of the operative clinic and Dr. G. H. Wilson a similar post in the prosthetic clinic, both having held these positions since the beginning of the school. Dr. D. H. Ziegler, after one year's experience as demonstrator, was put in active charge of the operative clinic and Dr. Varney E. Barnes, with two years' experience, was put in active charge of the prosthetic clinic, although nominally Dr. George H. Wilson was superintendent of both during the sessions of 1901-03. At the end of the year 1900-01, Dr. Wilson ceased to teach in the laboratory courses, restricting his teaching to lectures. In each case withdrawals were replaced by recent graduates, with less maturity and limited teaching experience, in ranks lower than professorships. These changes were made to reduce expenses.

Through these years the annual reports of the president, the dean, and the secretary indicate continuing prosperity, but stress the need of funds additional to receipts from student fees and clinics. They also call attention to approaching need of

replacement of equipment and of the need of a new building. In his report of 1899-1900 the president suggests that the trustees establish for the dental school an endowment of \$50,000.

By the increase of the annual number of operations in the clinic these reports also indicate extension of the service to the public. The slight rise of entrance requirement may be noted, along with the further facts that most of the students were high school graduates, that, while the length of session in other dental schools of the state was six months, in the College of Dentistry of Western Reserve University it was eight months, and that in other ways the school was maintaining standards in advance of neighboring schools.

All this looks prosperous, but there is not mentioned the accumulated operating deficit which, at the end of 1900-01, had become \$2,100 in addition to \$3,500 bank loan of 1896 to purchase equipment now rapidly wearing out, and the personal loans carried by President Thwing. These three types of deficits totalled nearly \$7,000 in June 1901. Either new sources of income, or retrenchment, or both had become imperative.

After hints by the president, the first as early as May 1893 and another in 1899, in April, 1901, the definite proposal was made that the dental faculty should associate with themselves other members of the local dental profession, and take over the school, and operate it as a proprietary school in affiliation with the university, an arrangement then common in dental education.

The discussion of this plan lasted several months, when the faculty declined the proposal. The records show no intimation that such a plan was considered educationally unworthy, however. Several participants later told the writer of this history that the adverse decision was not influenced by opposition to the principle of such an arrangement, but only by the belief that it gave less assurance of salaries than did operation by the university officials. Furthermore, there was still hope for endowment.

The proposal was made again in 1903, and again refused. It is plain, therefore, that the plan for a school conducted on an affiliated basis did not bring objections to the principle in 1901

and 1903 from some of the same men who freely condemned the principle when it was actually put in operation in 1906.

Tenth Year (1901-1902)

The decennial year of the school was ushered in by an enrollment of 113 students, much advance in attendance over any previous year, although the freshman class was smaller by a fourth than the previous one.

In June 1901 Dr. John R. Owens, for nine years since the beginning of the school, lecturer on anesthetics, resigned. His work was divided and assigned to two other members of the teaching staff. Dr. Louis P. Bethel, professor of bacteriology, resigned in June 1901 after five years of service and was replaced by Dr. Roger G. Perkins, a new member of the medical teaching staff. Since 1893 there had been in the medical school a department of physiology and histology where dental students had taken histology in classes with medical students. But when these two subjects were separated in 1901 and a laboratory of histology and embryology established, the dental students received their instruction in histology in this laboratory under Dr. Frederick C. Waite, also a newcomer to the medical teaching staff. These two men were elected to the dental faculty.

This ended the teaching of dental students in classes with medical students, the separation being made necessary by the changes in entrance requirements for medical students in effect at the beginning of the year.

On the teaching staff in 1901-02 were ten dental graduates. Five of these were from this school. There was then no distinction between faculty and teaching staff, and these younger men, some of whom had been students only the year before, attended faculty meetings. This put them on a parity with the older men both in their own estimation and in that of the students, and some of them stressed this equality. It also put them in possession of certain facts and opinions brought out in faculty discussions, and, in their immaturity, they felt called upon to discuss these with other members of the teaching staff and even with students. Herein lay the genesis of lack of harmony in the

teaching staff which accentuated the difficulties that soon began to increase. Early in this session Dr. John F. Stephan, professor of operative technics, resigned after more than seven years of efficient teaching service.

During this session there was much discussion as to how the instruction was to be cared for in the quarters then occupied and with the equipment then in hand when the course should be increased to four sessions. The dental schools of the country had decided to begin a four-session course in 1903-04. Although it was later found impossible to maintain this plan it was in contemplation in 1901-02 and the need for greater facilities seemed imminent.

In 1901 the first set of rules upon promotion was adopted and there was developing a very definite policy for improving the scholarship through suspension and expulsion of unsuccessful students and through denial of graduation to weak seniors.

Dr. C. A. Hamann, who had taught anatomy since the second year of the school, ceased active teaching of the subject in June 1902, but he continued membership on the faculty in teaching oral surgery. The teaching of anatomy was committed to Dr. John S. Tierney with the title of lecturer under the oversight of Dr. Hamann. Both the professor and the demonstrator of orthodontia resigned.

The year 1901-02 was the first in which a budget was prepared before the beginning of the session. This was in response to a resolution by the board of trustees in June 1901 that all departments of the university be run on a budget plan instead of by the former method of meeting demands as they arose, even in the middle of the session. The result in the College of Dentistry was happy. For the first time in five years there was a balance on the right side of the financial ledger, and the cumulative operating deficits were materially reduced.

In his report to the trustees in June 1902 the secretary and executive officer of the dental faculty called attention to the increase in enrollment, inadequacy of quarters and equipment and to the fact that the faculty had "exhausted its resources."

The desperate situation of the College of Dentistry was not concealed from the university trustees.

Eleventh Year (1902-1903)

The number of freshman was larger than in any year except one in the history of the school in spite of the advance of minimum entrance requirements to completion of two years in high school which became effective at the opening of this eleventh year. This requirement continued until 1907-08.

Although several students of the previous year were denied readmission on account of poor scholarship, the total attendance reached the peak for the first twenty years of the school, 114. But in 1903-04 the attendance began to fall off rapidly and for eight years it was less than a hundred.

A policy was begun in this year that later brought resentment in other departments of the university. Up to that time maturity and several years of teaching experience were required for a professorship in any school of the university. In the College of Dentistry, however, resources being inadequate, high titles were awarded to compensate for low salaries. This continued for fifteen years and young men in their twenties, graduates of but two or three years, and older men who gave only an hour or two a week to teaching were designated as professors. Regard of other faculties of the university for the dental school diminished, for by its policy the title of professor was cheapened in the entire university.

Enthusiasm in the dental faculty was on the wane. Replacement of older teachers by younger men was lessening the reputation of the school. Members of the local profession were withdrawing their commendation and some were frankly condemning it.

Into this perilous situation came a calamity which was the outstanding feature of this year. To understand its origin conditions in the medical school must again be considered.

When in 1896 the College of Dentistry left the medical school building it continued to send its students to that building for instruction in anatomy, histology, chemistry, bacteriology, and

physiology. Bacteriology had been removed to the dental building in 1900. The professors of the medical faculty received from the dental school budget a small stipend for teaching dental students. In addition the dental school paid for some part-time demonstrators and also a small sum for the materials actually used by dental students in each laboratory. This was all the dental budget could allow and even so it was year after year running deficits. It could not pay toward support of the general overhead of the medical school building, nor towards maintaining the medical school laboratories.

In 1898 the medical school enthusiastically adopted an entrance requirement, effective in 1901-02, of three years of work in an undergraduate college, but it appears questionable whether to advance so far so soon in face of competition of many medical schools in the general geographical area was wise. Some enthusiastic members of the medical faculty predicted a large response from all parts of the country.

However, when these college entrance requirements went into effect in September 1901, instead of the predicted twenty-five new registrants there were but twelve. Again in September 1902 but twelve entered. Of these twenty-four, fourteen were from Adelbert College and but three from outside the state. This small number of entrants was in comparison with an average of forty-five for the previous ten years. It was evident that the response in this geographical area to college entrance requirements had been misjudged, and if enrollment did not increase, the medical school would, by 1904-05 have less than fifty students.

In anticipation of large response to this advanced policy several full-time, salaried men had been appointed in the medical sciences. The endowment and fees of so few students would not meet the operating expenses. Appeal was made to the personal generosity of some of the trustees for annual contributions, but similar contributions were being sought by other departments of the university that had been more conservative.

The trustees were much disturbed and there was serious discussion of retreat from the new policy and return to high school

graduation as the requirement for entrance. The financial difficulties of the medical school were as disturbing as those of the dental school, but involved much larger amounts, and the medical school was fifty years older with many more alumni. Moreover, there was a large capital investment in the medical school building and its equipment, and the endowment and advanced policy had brought it much publicity. To retreat would disturb the reputation of the entire university.

In this danger of the failure, even of the closing, of the medical school lies the answer to the question often asked, Why did not the trustees as individuals or as a body come to the financial rescue of the dental school in 1901, 1902, and 1903? The story of how the medical school was rescued from its perilous position does not belong here, but there are only two or three men living in 1940 who know the details of that rescue because they participated in it.

As soon as the small entering medical class of 1901 was known, the medical faculty looked about for additional sources of income. At the medical faculty meeting of October 1, 1901, the question as to the share in maintenance of the medical science departments which should, in their opinion, be borne by the dental school, was discussed and referred to a committee for attempted adjustment. Little progress was made in 1901-02, but in the autumn of 1902, with another small entering medical class the problem was vigorously attacked.

That income was not the only factor is shown by the following quotations from a letter of December 10, 1902, from Dr. B. L. Millikin, dean of the medical faculty to the University treasurer, in which he wrote:

The only possible chance for our medical department to make its way, under the heavy competition we shall have from well endowed institutions, is in getting everything possible out of the men we are able to employ in the way of research work.

I cannot help feeling that it is a very great loss to the men who are employed in the laboratories of the medical department that any of their time should be taken for teaching dental men, as this could be just as well carried on by men who are paid much smaller salaries and are much less well trained.

You see therefore how I must feel and think when I see the time of our valuable men frittered away on the dental department.

In the session of 1902-03 it became known that the professor of physiology would accept a call to another university at the end of the year. Since inorganic chemistry was required for entrance to the medical school, it was decided that economy and some other factors called for abolition of the department of chemistry, utilization of some of its space for physiology, and for the combining of chemistry with physiology. This plan left no facilities for teaching inorganic chemistry to dental students at the medical school building.

The committee of the medical faculty, to which the adjustment with the dental school had been referred, prepared an extensive report of past and present relations of the two schools. In this report was an estimate, as of October 1, 1902, of unpaid obligations of the dental school to the medical school, consisting of "rent" for 1894-96 when the dental school was located in the medical school building and, in excess of what had been paid, and the pro rata cost of teaching dental students since 1896, all amounting to \$3,000.

Thereupon this committee made demand upon the College of Dentistry for payment of \$3,000 and for agreement that the College of Dentistry should in the future pay pro rata for the use of the laboratories of the medical science subjects. Since there were at that time twice as many students in the first and second year classes of the dental school as in the corresponding classes in the medical school, it appeared to some that the College of Dentistry was expected to pay two-thirds of the maintenance of the five medical science laboratories in which dental students were taught. This would mean an annual cost to the College of Dentistry of about \$5,000—probably a misinterpretation of the expectations of the committee of the medical faculty.

These demands were based upon the idea, traditional for sixty years, of the autonomy of the medical school, and ignored certain facts: that both schools were part of one university, that the laboratories belonged not to the medical faculty but to the

university, and that adequate instruction in the medical sciences to dental students was an obligation of the university.

The School of Dentistry, entirely unable to meet either of these demands, declined to pay the accrued obligation, or to enter into any agreement which it evidently could not meet.

Thereupon Dean Millikin, with approval of the medical faculty, notified the members of the medical teaching staff who were teaching dental students that this service would not be permitted after the year 1902-03. The medical faculty further decreed that no dental students should be taught in any of the laboratories of the medical school, even by men entirely paid by the College of Dentistry. Later an exception was made of gross anatomy, for it was impossible to establish another dissecting room, and dental students were permitted to be in the dissecting room of the medical school during vacations or after the course in anatomy for medical students was closed. Later another modification permitted a few of the younger assistants on the medical teaching staff to engage in teaching dental students.

Thus it happened that the medical faculty disowned the waif that it had brought into being eleven years before and which, by reason of being poorly nourished financially through the period of its infancy, was for all its effort, not yet able to walk alone. Gradual though the dissociation had been, it was, nevertheless, disastrous.

There was much discussion among local dentists of the probable motive in making these demands which were known to be impossible to fulfill. Two opinions resulted. One was that the medical faculty considered itself superior to the dental faculty and wished to sever all connection with it. The second was that this was but further evidence that physicians were determinedly unfriendly to dentists. The author, knowing the members of the medical faculty intimately, does not believe that the personal element affected the situation in any considerable degree.

Other facts must be considered in making any deductions as to motives. The medical school was in a desperate financial situation and some men, quite outside the faculty, whose influence was needed in support of the Medical Department, were

unfavorably disposed to the College of Dentistry. Also, there were in progress negotiations for a merger between the Medical Departments of Western Reserve University and Ohio Wesleyan University, and for reasons of which there is no record, the relation to the College of Dentistry seemed a deterrent to this merger.

The author knows that in the mind of Dean Millikin were two other incentives. He believed that if the university trustees were brought to appreciate just how much the Medical Department was doing for another university department it would perhaps stimulate them to further aid. Also, he thought it possible that the need of the College of Dentistry might, in the emergency, induce someone to help local dental education who would not give to medical education.

While the motives may be problematical, the result was certain. The College of Dentistry was compelled not only to secure new teachers in the medical science subjects, but to establish its own laboratories. The date when the final edict of the medical faculty committee reached the dental faculty is not recorded, but the matter was generally known and the outcome was evident. In the dental faculty meeting of January 10, 1903, a committee was appointed to arrange for all instruction to dental students, except anatomy, to be given outside the medical school building after June 1903. The faculty minutes for the rest of the year are largely concerned with discussion of these arrangements and of the four-session curriculum expected to begin in 1903-04. These changes gave added stimulus to the desire for a new building adequate for all instruction to dental students which, it was hoped, would be expanded with the initiation of the four-session course.

At the end of the session of 1902-03 Dr. Perry L. Hobbs, professor of chemistry, Dr. George N. Stewart, professor of physiology, and Dr. Frederick C. Waite, assistant professor of histology, all members of the medical faculty, resigned from the dental faculty. Dr. Hobbs and Dr. Stewart also resigned from the medical faculty. Dr. Perkins and Dr. Tierney, junior assistants on the medical teaching staff, were permitted to remain on

the dental faculty. Dr. Whitslar gave up the teaching of dental anatomy which he had taught since 1892, and the teaching of this subject was taken by Dr. H. C. Kenyon.

This year again showed a deficit in the operating expense of nearly \$500, so that the accumulated operating deficit, which had been much reduced in the previous year, was back to nearly \$1,000.

Eleventh Year (1903-1904)

The eleventh year opened with major changes in the teaching of the medical sciences. The laboratory course in physiology was abandoned and not resumed for eleven years. The course in chemistry was transferred to the second year to avoid giving it in 1903-04. A small room in the quarters of the dental school with a total floor area of about 500 square feet was meagerly equipped as a laboratory of histology and bacteriology.

The man who was engaged to teach histology and physiology was drowned in August 1903 and, in the emergency, a young clinical medical man was secured to give the lectures in physiology, and a medical practitioner, who formerly taught in that laboratory in the medical school, to give the instruction in histology.

The enrollment was reduced from the 114 of the previous year to 88. There were but fifteen freshmen. This small class was in part due to the diminishing reputation of the school, but mainly to the fact that the four-session course went into effect with the class entering this year.

This effect was found in all dental schools and at Christmas, at a special meeting of the National Association of Dental Faculties, this plan was renounced and the three-session course was again adopted, to continue until 1917. But Christmas was too late to enroll the students who might have entered in September except for the announcement of the four-session course.

At the end of this year Dr. Weston A. Price, who for five years had taught applied electricity, resigned, and instruction in this subject was abandoned. Dr. W. H. Whitslar resigned his professorship of dental pathology, the secretaryship of the faculty,

both held since 1892, and the post of executive officer, which he had held since 1900. His duties were distributed to four different men. His withdrawal from the faculty was a serious loss not only in the teaching, but also in the administration, the details of which he had carried through the entire life of the school. This accentuated the dissolution of the old faculty, and the decline of the school was now evident.

The financial retrenchment was accomplished by deterioration in the quality of the courses, especially in the medical science subjects. The operations of the year showed an apparent balance, but a large item of salaries unpaid was carried over to be paid out of the next year's income. The marked falling off in attendance had prevented the budgeted income from being received.

Thirteenth Year (1904-1905)

This and the following year mark a rapid decline in all respects. The post of executive officer vacated by Dr. Whitslar was not filled, but the secretaryship was taken by Dr. H. C. Kenyon. The vacancy in dental pathology was supplied by the appointment of Dr. Frank Acker, a graduate of the class of 1895, who had gone on to his medical degree, but had had no experience in teaching. Dr. Frank M. Casto, who had just located in Cleveland, became professor of orthodontia.

Again attendance decreased, and there were but seventy-nine students. The four-session curriculum projected a year before had to be remodeled somewhat, and, since the juniors had not taken chemistry when they were freshmen, this subject had to be taught to two classes, freshman and junior.

Chemistry, which was not taught during the previous year, was taken by an instructor in the medical school with the assistance of a medical student. The use of the chemical laboratory belonging to the evening school of the Y.M.C.A. next door was secured and the establishment and equipment of a laboratory was thus avoided.

A new outstanding feature of this year was the clinic. The attendance of patients had been gradually falling off for several

years, although the upper classes had been larger, until in 1903-04 there were less than 6,000 operations for a combined senior and junior class of seventy-two men, less than eighty per student, while four years before there had been over a hundred and thirty per student.

The physical condition of the clinic was believed to be a major factor. The rooms were shabby. The equipment, especially the operating chairs, was worn out, some having been used for twelve years by none too gentle students. Much of the equipment, though still usable, was obsolete.

This equipment represented a capital cost of over \$5,000, paid by borrowed money that still remained an obligation. To replace this equipment and redecorate the clinic rooms meant a capital expenditure of at least \$7,000. Already the indebtedness was over \$6000. The trustees would not consent to borrowing again on the note of the university as was done in 1896, and there was no chance of securing contributions. Either the school must close, or some way must be found to reequip the clinic.

The way the emergency was met was not generally known until the opening of the session of 1904-05, but the next catalogue said, "During the summer of 1904 the Prosthetic Laboratories and Operatory and the Extracting Rooms were refurnished at great expense. The rooms were all decorated in blue and gold and all woodwork covered with white enamel. . . . The Operatory is now furnished with Columbia chairs, upholstered in leather, glass bowl, fountain cuspidors, electric service at every chair; in short with all the necessities and conveniences that go to equip the most modern dental office."

The method by which this was done was that on July 5, 1904, a contract to run three years was signed between the officers of the university and Messrs. H. M. Brown and A. M. Pearson, who were respectively president and secretary of the Cogswell Dental Supply Company, a local firm.

This contract provided that Messrs. Brown and Pearson were to redecorate the clinic rooms and reequip both operative and prosthetic clinic with at least twenty-five Columbia chairs with fountain cuspidors, together with other necessary apparatus and

equipment. They were to pay for all materials and service in the clinic, but no part of the rent. They were to receive in return all income from the clinic, and the university agreed so to arrange the schedule that each junior and senior should work in the clinic six hours a day throughout the school session.

The university had the option to purchase the equipment at the end of the three-year contract, that is, in July 1907, at not to exceed 75 per cent of the original cost. It was hoped that the well equipped clinic would revive the school.

If the juniors were to be sent into the clinic six hours each day, rearrangement of the curriculum and schedule was necessary. As a result practically all the medical science courses, along with several dental laboratory courses, were given in the freshman year.

As Superintendent of Clinics Dr. H. Milton Brown was appointed and thus came into the College of Dentistry of Western Reserve University a man who was soon to come into major control of the school for good or ill for a long period of years.

When the contract was signed the clinic of the College of Dentistry became an adjunct of the Cogswell Dental Supply Company, which had the advantage over the university of buying equipment and supplies at jobbers' rates. This meant an advantage that could be turned into profit in operating a clinic. This relation between the clinic and the supply company did not long remain. The Cogswell Dental Supply Company was in financial distress and the clinic and the equity in its operation was a part of its assets.

Soon after this contract was signed there was taken out a charter for a corporation to operate this clinic. The chief stock holders in it were Dr. Brown and Mr. Pearson. Mr. Pearson gave his stock as collateral in another business engagement between these two men. Soon after this Mr. Pearson left town and Dr. Brown exercised the rights under assignment of the collateral and became sole owner of this corporation, conducting the clinic of the College of Dentistry of Western Reserve University.

Dr. Henry Milton Brown was a graduate in dentistry in 1895 of the Pennsylvania College of Dental Surgery. In 1904

he had been nine years out of dental college and was thirty-one years of age. He had had experience neither in conducting educational institutions nor in teaching. At no time during his thirteen years of connection with the College of Dentistry was he on the teaching staff. In 1904-06 his relation to the clinic was in no way educational, but entirely as a business manager. Later he proved himself a good business man in many ways, but he never claimed, so far as the author is able to judge from many conversations with him, to be an educator.

No record of the number of operations in the clinic during that year is known to exist. Teaching in the clinic was by members of the teaching staff of the College of Dentistry under the control of the faculty. Dr. Brown was not a member of the faculty, nor is he recorded as attending any meetings of the faculty prior to June 15, 1906.

No other events of special interest occurred during the sessions of 1904-05. Student fees amounting to nearly \$7,900 were the only source of income accruing to meet the school's budget. The apparent deficit in operating expense was about \$150, but for the second time a large item of unpaid salaries was carried over to the next year.

At the end of this year several members of the staff resigned: Dr. G. H. Wilson, Professor of Prosthetics and Metallurgy; Dr. J. W. Van Doorn, Professor of Materia Medica and Dental Therapeutics; Dr. D. H. Ziegler, Professor of Clinical Operative Dentistry and in charge of the teaching in the operative clinic; and two of the demonstrators. The only remaining demonstrator was transferred to another type of teaching. The dean, Dr. H. L. Ambler, was the only man on the original faculty of 1892-93 now left.

Fourteenth Year (1905-06)

This final year of the first era opened with 68 students, the smallest number since 1895-96, the last year in the medical school building. The attendance was but 60 per cent. of that of five years previous and showed fourteen per cent. decrease from the previous year. It was evident that the new policy in the clinic could not revive the school.

The faculty was apathetic. No longer did the local profession support the school. Dissolution was at hand. Teaching was carried on with little enthusiasm. The entire burden of decision as to the future now rested upon President Thwing, for the trustees were concerned as to whether the medical school would survive and had little interest in the dental school. The vacant professorship in materia medica and therapeutics was filled by a graduate in medicine and dentistry who had served the previous year as a demonstrator and was now promoted to a professorship. The other professorships were left unfilled.

The debts of the dental school were now over \$5,500 in addition to the accumulated operating deficit of about \$1000 at the end of this year. It was apparent that there would be no possibility of buying the clinic equipment at the end of the clinic contract in June 1907 and that the school must end its present method of operation. The only chance to meet the outstanding obligations was to sell the school and such of the equipment as belonged to the university, although it had little value except in the operation of a school.

Even though there was little doubt that a dental school was needed, there was no likelihood that the university would be able to finance it. Two possibilities were open. One was for the university to withdraw entirely from dental education, in which case a proprietary school would almost certainly arise and run independently or in affiliation with one of the other medical schools. If, at any future time, the university might wish to resume dental education it would have a going competitor to combat.

The other possibility was affiliation of the university with a school privately operated. It was hoped that such affiliation would exercise some little control, would serve as a deterrent to gross educational irregularities, and would place the university in a position to resume dental education when its financial resources would permit. Meanwhile the rise of a future competitor would be prevented. At that time such affiliations were common and not considered unworthy.

The latter course was chosen, and on February 6, 1906, the

school was sold to Dr. H. M. Brown for \$7,500. The conditions and the results of this sale will be discussed in the next chapter. The sale gave possession on June 15, 1906, and this date closes the end of the first era of fourteen years of the school's history.

On February 17, 1906 was incorporated the Reserve Company under which the school was operated until June 1917. Some general conclusions regarding this medical school era will be given in a final chapter.

This year in the school was one of apathy rather than of interest, although the fact of the sale was not generally known until near the end of the year. Under the terms of the sale the tenure of all the teachers was automatically terminated except insofar as they might be invited to join the new organization and might wish to enter it.

CHAPTER VIII

THE ERA OF AFFILIATION

(1906-1917)

It was noted in the preceding chapter that an agreement was signed on February 6, 1906 by the officers of the university to sell the College of Dentistry to Dr. H. Milton Brown, who was a practicing dentist in Ashtabula, sixty miles distant and who was engaged in the dental supply business in Cleveland. This agreement was approved by the executive committee of the university trustees on May 15, 1906 and possession was given on June 15, 1906. On February 17, 1906 a charter was issued to The Reserve Company, a corporation for profit with capital stock of \$25,000 divided in two hundred and fifty shares of \$100 each. The incorporators were H. M. Brown and four others of whom none were dentists. Dr. Brown at that time was the president of the Cogswell Dental Supply Company, and the four others were employees of that company. The office of the new corporation was given as the office address of the Cogswell Company. The purposes of the company were given in the charter as "establishing, maintaining, and conducting an institution of learning for the purpose of teaching and demonstrating all branches of theoretical and practical dentistry."

Beginning with its second paragraph the contract of sale reads: "It is agreed that H. Milton Brown (the second party) or his assigns shall have exclusive control of the said Dental College of the Western Reserve University, with power to administer its affairs, including the policy of its conduct, the selection, retention and discharge of its faculty, teachers, demonstrators and operators, their remuneration, and all other matters pertaining; the discipline, acceptance, suspension and expulsion of its students and all other matters and things connected with the administration of the said Dental College without the interposition of the First Party." The first party was Western Reserve University.

"It is understood that Dr. Charles F. Thwing is to remain

President of the faculty of said Dental College." No evidence has been found that President Thwing had any relation to the Reserve Company as stockholder, officer, or employee.

Also contained in this agreement was a provision, as follows:

"The Second Party agrees to pay to the First Party a fee of twenty-five dollars for each student of the said Dental College who graduates and receives a diploma from the First Party, said payments to be made at the time of said graduation and are to continue while this contract remains in force.

"The First Party agrees to confer the University degree on all students who fulfill the requirements fixed by the Second Party for its graduates" . . . (The second party was Dr. H. M. Brown.)

It seems conclusive that after June 15, 1906 the university had no authority. Its part was only to confer the degrees upon those candidates named by Dr. Brown, receiving the graduation fee traditional in affiliated professional schools to cover costs of diplomas and expenses of commencement.

Dr. Brown had bought the school as an individual, but he soon turned it over to the Reserve Company which, therefore, became "his assigns." Throughout the history of this era there is confusion between the relations of the school to the dual rôle of Dr. Brown first as an individual and second as the owner of the majority of the stock of the Reserve Company.

It is difficult to follow the details of this second era. While the catalogues give general information, they give little detail. The faculty records, signed by Dr. Brown as secretary, are brief for throughout this era the meetings of the faculty were usually but two a year. On the opening day of the session the faculty met for a short time before a public greeting to students was given, and again just before commencement the faculty met to recommend candidates for degrees. In some years only the latter meeting was held.

For the ten years from 1906 to 1916 inclusive all the faculty records contain less than eight thousand words. Practically no motions are recorded except those that were made by either Dr.

Belford, Dr. Brown, or Dr. Friesell, and seconded by another of these three. Other members of the faculty apparently took a little active part. Occasionally a special committee was appointed, but its chairman was always one of these three.

This infrequency of faculty meetings and lack of faculty discussion was in conformity with the ideas of Dr. Brown. Some years later he wrote, in discussing the administration of a dental school: "I also feel that it is a great mistake to allow the Faculty to pick out who should be on the Faculty, or who should not, and the fewer faculty meetings held during the year the better, as most faculty meetings are apt to develop into debating societies and the real purpose for which the meeting was called is lost." At another time Dr. Brown wrote that in his capacity as executive officer he was superior to the dean in all matters, pertaining to the conduct of the dental school.

By the terms of sale the tenure and university titles of all members of the teaching staff terminated when the new management took control on June 15, 1906. Several who were members of the staff in 1905-06 were invited to continue. All but five declined. An endeavor was made to bring back to the teaching staff some of the men who had resigned within the previous two or three years, but all except one declined. At this time the management went outside of Cleveland and brought in men from other states, some for full time, and some for part time service.

At a faculty meeting held on October 3, 1906, seven members were in attendance, of whom only the president and the dean had been connected with the school in the previous year. At this meeting a teaching staff of sixteen was designated. It consisted of eleven professors, two lecturers, two demonstrators, and one assistant. Three of the eleven professors were without any teaching experience. Although there is no record in the minutes, the catalogue carries an additional demonstrator of operative dentistry, who was not a graduate in dentistry and did not hold any other degree. Of the staff of seventeen, eleven had never been teachers in this school.

The subjects of histology, anatomy, pathology, bacteriology, chemistry, oral surgery, and all of operative dentistry, prosthetic

dentistry, technics, and clinical dentistry, were in the hands of newly chosen faculty members.

Two of these new men gave the major part of their time to the school. Dr. Thomas J. McLernon, a graduate in 1896 of Philadelphia Dental College, came from a practice in New Jersey to be designated as professor of clinical dentistry, bacteriology, and operative technique, and superintendent of the infirmary. Dr. Edward E. Belford, a graduate in 1904 of the dental school of George Washington University, came from a dental practice in another city and was designated as professor of prosthetic dentistry and histology, and superintendent of the laboratories. These two principal teachers of important dental subjects had no previous teaching experience in dentistry.

Dr. H. E. Friesell of Pittsburgh, who was graduated with Dr. Brown in 1895 from the Pennsylvania College of Dental Surgery, was scheduled to spend one day each week at the school. He was designated professor of operative dentistry and dental pathology. At the same time he was a professor in the Dental School of Western Pennsylvania University in Pittsburgh. He was the only one of the eleven new members of the teaching staff who had any previous experience in teaching dental students. This was the second instance in the history of putting an important subject under the control of a man who had an important obligation in another dental school. It had been done from 1896 to 1901 when Dr. Case of Chicago was in charge of orthodontia.

The catalogues show that at the end of each session there were withdrawals from the teaching staff, and new individuals were employed to replace them.

Fifteenth Year (1906-07)

In the first year of the affiliated era the entering class was smaller than in the previous year. This may have been due in large part to the advance of tuition in all dental schools from \$100 to \$150.

In spite of the terms of the contract already quoted, the catalogue printed in January 1907 states, "The College is under

the control of the University Trustees and is in every sense a part of the university." In July 1911 the statement is modified to "...is in every sense a part of the university." Not until the catalogue printed in July 1915 was this statement omitted. In July 1916, for the first time, the statement was made, "The Dental School... was organized by the Trustees in 1892. Since then the earlier relationship has been modified but all degrees are conferred by the university."

There was no considerable change in the curriculum in the year 1906-1907. At the end of it twenty men were graduated. In May 1907 Dr. H. L. Ambler withdrew from the school. He had been on the faculty fifteen years and for fourteen years had served as dean. He was the last person of the original faculty to withdraw who had been in continuous service. Dr. Thomas J. McLernon who had had one year of experience in dental teaching, was appointed to fill the vacant deanship.

Sixteenth Year (1907-08)

There was a slight increase in the number of students this year. However, the freshman class showed a decrease, probably because the entrance requirements of the completion of three years in high school became effective, as to all dental schools in the country.

One faculty meeting was held this year. This was in June to recommend the degrees, and the records of the meeting show very little other business transacted. Dr. Brown, as executive officer, made appointments to the teaching staff and promotions to professorships which were printed in the next catalogue, but of these there is no mention in the faculty minutes.

One of the events of this year was the entrance of the first woman student in the history of the school. The admission of women was discussed in 1893 and several times subsequently up to 1905, but each time decision was adverse because in the medical school, where part of the teaching of dental students was done, women were not then admitted.

Twenty-four men were graduated this year. At the end

of the year Dr. McLernon resigned and returned to practice in New Jersey.

There was now no teacher left who had been on the staff prior to the session of 1903-04. Of the men teaching dental subjects, but one had had more than two years' experience in any kind of teaching.

Seventeenth Year (1908-09)

The attendance fell to sixty-eight. It had been well above this every year since 1895-96 except in 1905-06, the last year of the first era. The first year class was smaller, and this could not be ascribed to increase in fees or in entrance requirements, for there was no advance in either. At this time it seemed that the new form of organization was no more successful in attracting students than was the old. The average attendance of the first three years of its operation was 72, while the average for the last three years of the first era had been 78.

At the faculty meeting of October 7, 1908, Dr. Edward E. Balford was elected dean. His experience in dental teaching at that time covered a period of two years.

At the faculty meeting of June 2, 1909, sixteen men were recommended for the degree. In addition three men were recommended for graduation in the following October after additional work. This is the first instance in the second era of the graduation of any senior being deferred. In the minutes of this same faculty meeting appears the first record in the second era of any endeavor to improve scholarship. Rules regarding attendance, reexaminations, and passing grades, adopted several years before, but neglected in recent years, were reaffirmed. One man was required to repeat the work of the senior year. These actions may have been related to the failure of several of the twenty-four graduates of 1908 to pass the Ohio examinations for license.

Eighteenth Year (1909-10)

The eighteenth year opened with an attendance of eighty-four, an increase of sixteen over the previous year. The increase was all in the freshman class, which had an enrollment of

thirty-nine. The upper classes remained unchanged in number, withdrawals being replaced by admissions to advanced standing. This marked increase was influenced by entrance requirements. Again these were to be increased, high school graduation being required by all dental schools for those entering in September 1910. It is common experience that an entering class is larger just before an advance of entrance requirements becomes effective.

Arrangements were made this year to move to a new location with the expectation that more clinical patients would be available. The rental was considerably less. This was the last of fourteen years occupancy of two floors in the Bangor Building.

At the end of this session two seniors were denied graduation, and the first woman dentist trained in this school was graduated. She, with nineteen men, made a class of twenty.

Nineteenth Year (1910-11)

The new quarters in which this session opened were smaller than those formerly used. The total attendance was larger, but the freshman class smaller—again, a common experience of the first year following an increase in entrance requirements. High school graduation, or its equivalent, continued to be the entrance requirement for the remainder of the second era, but, since in the case of many entrants the equivalent of high school graduation was determined by examination, the real test of preliminary education was the quality of the entrance examinations.

No special incidents marked this session. At its end twenty-one men were graduated.

Twentieth to Twenty-second Years (1911-12, 1912-13, 1913-14)

Beginning with 1911-12 additional space was rented so that the school occupied the entire second floor of the building at 2650 East Ninth Street, an area approximately equal to that formerly occupied in the Bangor Building on Prospect Street.

A striking event of the session of 1911-12 was the increase by nearly a third of the size of the entering class over that of the previous year. In this and the succeeding two years the

entering class numbered just under fifty. These classes were admitted by a private citizen as an examiner employed by the management. When these larger classes came to graduation the percentage of failures in licensing examinations mounted steadily.

On March 17, 1913, by amendment of its charter, the name of the company conducting the school was changed from The Reserve Company to The Western Reserve Dental School Company, but no changes were made in the charter to affect the powers of the company.

Forty-five men and women were graduated in 1914, the largest class in the history of the school. However, nine of them failed to pass the licensing examination in Ohio. At this time there was an increase in the rigor of licensing examinations in many states. The reason for this was that it was believed that graduates who had entered under requirements of high school graduation should show greater proficiency than the graduates who had been admitted with but two or three years of high school preparation. State board examiners believed that a more rigorous policy would curb the leniency known to prevail in admitting students by entrance examinations.

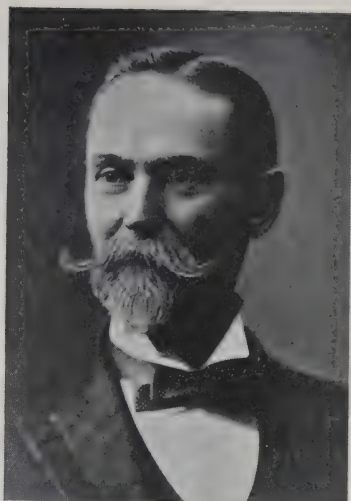
Twenty-third Year (1914-15)

Three incidents of importance characterized this year. The largest class in the history of the school, seventy-six, entered. This was not an unmixed blessing, for when this class, much reduced by withdrawal of dissatisfied students, came to graduate in 1917, more than half of the forty failed to pass the licensing examinations.

The second incident was the inauguration, at the beginning of the session, of a course for training women as dental office assistants. This made no great appeal, attendance was small, and after two years this endeavor was abandoned.

The most important occurrence was the reentrance of the School of Medicine into the teaching of dental students.

Dentists were coming to appreciate the value of the medical sciences in dental education, and for teaching these the School of Dentistry of Western Reserve University had inferior facilities.



CHARLES R. BUTLER, 1892-93
THOMAS J. McLERNON, 1907-08

HENRY L. AMBLER, 1893-1907
EDWARD E. BELFORD, 1908-17

THE DEANS OF THE FIRST QUARTER CENTURY

In the licensing examinations the graduates were making a poor showing in these subjects. The management began to see that some improvement must be made and indicated that they would welcome cooperation from the medical faculty.

In 1912 there had been a change in the administration that was in control in the School of Medicine when, in 1903, the divorce from the School of Dentistry occurred. At the beginning of the session of 1914-15 the department of anatomy of the School of Medicine took over the teaching of that subject to dental students, and Dr. T. W. Todd, recently appointed to the faculty of the School of Medicine as Professor of Anatomy, was designated to the same title in the School of Dentistry. Coincidentally dental students were admitted to the physiological laboratory of the School of Medicine under an instructor in that laboratory who, for two years, had been giving a didactic course in this subject to dental students. Thus, after a lapse of eleven years, a laboratory course in physiology was resumed.

One of the important events of this year was the decision to move to a new location adjacent to the university campus. Dr. Brown prepared for the erection of a dental school building as a private investment, with the idea of renting it to The Western Reserve Dental School Company.

Thirty-eight were graduated at the end of the session; four were refused graduation and required to repeat the year, but one of these was graduated the following October.

Twenty-fourth Year (1915-16)

This was a session of important events. On October 13, 1915, Dr. Brown personally let the contract for the new building, expecting it to be ready for occupancy in October 1916, but war conditions delayed its completion for another year. The plan for instructing dental students in the laboratories of the School of Medicine was extended. Its medical school professors of bacteriology and histology were designated to similar positions on the dental faculty, and the professor of physiology was designated professor of physiology and chemistry. Four instructors on the medical teaching staff were employed to teach dental students.

With these changes the dental courses in anatomy, bacteriology, histology, and physiology came to be taught in the well equipped laboratories of the School of Medicine, while chemistry continued to be taught elsewhere, but by teachers from the School of Medicine. These new facilities led to improvement in instruction in the medical sciences, and some of the new teachers at once took an active interest in improvement of the scholarship in the School of Dentistry.

At the beginning of this session a committee on students was appointed to decide questions affecting student scholarship and discipline. At the end of the session a committee on curriculum was appointed. These two committees were the first standing committees appointed in the second era of the school's history and indicated larger participation of the faculty in school management..

At the end of the session the faculty recommended thirty-two for the degree. The graduation of five others was delayed until October, summer work being required of them. Of the thirty-one who took licensing examinations in Ohio in June 1916, eleven failed, a percentage of over thirty-five per cent, while the general average of failures for the country was under seventeen per cent. This was one of the classes admitted to the school by a private citizen employed by the owners of the school to determine equivalence of preliminary education. Delay in construction of the new building made it evident that the old quarters must be occupied for another year.

Twenty-fifth Year (1916-17)

Eighty-five freshmen, all but nine actually graduates of high school, initiated this final session of the second era. Extension of the course to four years made this the last opportunity to enter on a course which could be completed in three years, and this may be ascribed as the reason for this the largest class in the history of the school. The four-year course was announced to become effective in all dental schools of the country in October 1917.

Students were also attracted by the renewed participation

of the School of Medicine, the availability of its laboratories and teaching staff, and by the assurance of a new building for the School of Dentistry adjacent to the university campus. All neighboring dental schools would be housed in buildings inferior to the projected structure.

When the freshman class was being assembled and matriculated, the disastrous results for graduates of the school in the Ohio licensing examinations of June 1916 were not publicly known. To the officers of the school, however, the coming storm was apparent, for communications had already been received presaging the action of the Ohio State Dental Board.

When the session opened on October 2nd over two hundred students were in attendance, but the senior class was much depleted. A large number had withdrawn, a few because of poor scholarship, but a larger number because of dissatisfaction with the teaching in the upper years. These latter were soon followed by others, so that the senior class numbered but forty-three, about sixty per cent. of the class of seventy who were juniors in the previous year.

The Ohio statutes controlling the practice of dentistry were amended in 1914. The new statute required the Ohio State Dental Board to define a recognized dental college and to give examinations for license only to graduates of those colleges which complied with the definition.

On December 7, 1915 the board adopted and published its definition of a recognized dental college in nineteen articles. The dean of a dental college was required to make affidavit that his school fully complied with all prescribed regulations and conditions in order to secure recognition.

In making a study for formulating the definition of a recognized school, the Ohio State Dental Board made a careful inspection of the four dental schools within the state and found all of them to be privately owned, but three of them affiliated with universities.

In July 1916, upon affidavit of the dean, the College of Dentistry of Western Reserve University was placed on the recognized list, but a protest against this action on statutory grounds

was filed by an individual with the governor. One other school in the state had a similar experience. A ruling of the attorney general was asked. He ruled that under the statute passed in 1908 regarding chartered educational institutions, one institution could not legally grant degrees for a course taken in another institution, unless the first institution actually owned and controlled the institution where the work was done, and that therefore the relations that existed in three of the Ohio dental schools, including those between Western Reserve University and the Western Reserve Dental School Company, could not continue. Either the university which granted the degrees must come into possession and control of the school or the operating company must seek amendment of its charter to allow it to grant its own degrees. The two other dental schools that were in affiliated relation with universities chose the second alternative. The dental school in Cleveland could not adopt this plan, however, because the Western Reserve Dental School Company did not own property and equipment in the amount of \$25,000, the minimum specified in the statute for a degree conferring institution. This company was carrying on dental education in rented quarters and its property consisted solely of the equipment which, when inventoried in December 1916, was appraised at a little over \$16,000. The new building in process of erection and the land on which it stood were not the property of the company, but of Dr. Brown personally.

In August 1916 the Ohio State Dental Board notified the officials of the School of Dentistry of Western Reserve University that if relations were not changed in accordance with the ruling of the attorney general the school would be taken from the recognized list and its graduates would be refused examinations for license.

On September 20, 1916, in a conference with the secretary of the Ohio State Dental Board, President Thwing agreed that he would recommend that control by the Western Reserve Dental School Company be ended and the company dissolved as soon as possible. After discussion, on October 10, 1916 the executive committee of the university board of trustees agreed that the uni-

versity ought to terminate the contract of affiliation with the operating company and take complete control of dental education given under the name of the university.

In the same month, the Ohio State Dental Board demanded, under threat of withdrawal from the list of recognized schools, that the university take over control of the dental school at once. Since this involved extensive financial negotiations with Dr. Brown and other stockholders of the company, this could not be done, and on October 24, 1916 the school was removed from the recognized list. This meant that its graduates would be excluded from examinations for license to practice in Ohio.

About October 15th when the imminence of this action became known to the students, the senior class instituted what was called a "strike." They withdrew in a body and began negotiations seeking entrance as a group to a recognized dental school.

On October 20th the Cleveland Dental Society adopted resolutions in response to a petition addressed to them by the students. These resolutions recited some of the facts regarding the school and its difficulties and asked that the trustees of the university be requested to take immediate steps toward improvement. The society offered its assistance in reorganizing the school. As a result of this offer an advisory board of nine members of the society was appointed, seven of whom had been on the dental faculty in the medical school era. This board was called into consultation several times in the following months.

Acting in part on the suggestion of the Cleveland Dental Society, the dental faculty on October 27, 1916 voted to receive the striking seniors without disciplinary action, and agreed that if conditions in this school could not be brought to the point where the school was acceptable to the Ohio State Dental Board, endeavor would be made to transfer them to some recognized school. By this time, however, nearly forty per cent of the senior class had entered other schools, so that only forty-three returned.

On October 30, 1916 the trustees voted to assume academic and financial control of the school and on December fourth they voted to accept the proposal of Dr. Brown for the sale of equip-

ment belonging to the company and of the uncompleted building belonging to Dr. Brown. On December 14th the first payment on this contract of sale was made.

Beginning November 1st steps were taken toward improving instruction. The immediate problem now was to take action to justify the Ohio State Dental Board in returning the school to its recognized list. A new superintendent of the clinic was secured and additional demonstrators were appointed in an endeavor to meet the criticisms of the clinical instruction.

Late in January 1917, under authority of the university trustees, an executive committee on the dental school was appointed to attend to details of transfer of the school from the company to the university, of moving from the rented quarters to the new building, and of reorganizing the teaching staff. This committee consisted of President Thwing, Mr. John Dickerman, the university treasurer, and Dr. F. C. Waite of the faculty. To Dr. Waite was committed inventory and moving of the equipment, and the securing of preliminary information preparatory to reorganization of the teaching staff. On February 1st this committee assumed control of the school, and on March 20th the school was returned to the list of schools recognized by the Ohio State Dental Board.

The first and major duty was the choice of a dean. Mature members of the profession in Cleveland and in other cities of the state were consulted by the committee in the appointment. All agreed upon the selection of Dr. Frank Casto, who had experience in teaching and was possessed of judgment and maturity. Fortunately Dr. Casto was willing to make the personal sacrifices necessary to assist in the fulfillment of this program, and accepted the post which he filled for twenty years.

Although the dissolution of the Western Reserve Dental School Company was unanimously voted by the stockholders on December 27, 1916, the certificate of dissolution was not filed with the secretary of state until April 28, 1917. Throughout the life of this company from its incorporation in February 1906 until its dissolution Dr. H. M. Brown had been president and his wife secretary of the corporation. The report to the Ohio State

Tax Commission in 1916 shows that in addition to Dr. Brown and his wife the directors of the corporation were Dr. H. E. Friesell and Dr. J. H. Hood of the faculty, and Mrs. G. M. Hood, who was the wife of Dr. Hood. The names of other stockholders, if any, were not in the state records.

On May 31, 1917 the final faculty meeting of the second era of the school's history was held. Dr. Brown's occupancy of the posts of executive officer, secretary of the faculty, and secretary of the school, which designations he had held throughout the second era, were terminated at the end of the session. At no time from 1906 to 1917 had he held any post voted by the university trustees.

Thus ended the second era of the School of Dentistry, and it became the task of a new administration to attempt to develop confidence in the school as an efficient educational institution. In this respect the present high standing and official record of accomplishments stand in evidence of its splendid attainments.

CHAPTER IX

THE UNIVERSITY ERA

This era may be divided into three periods—one (1917-21) of rehabilitation or renaissance, one (1921-27) of advance, and finally, beginning in 1927, a period of stabilization. In this chapter will be included only general matters, the more particular matters being treated in later chapters.

The Period of Rehabilitation 1917-21

Potentially this period began on February 1, 1917 when the committee of three actually came into control of the School of Dentistry, although nominally the old management continued its activities until June 1917.

Unfortunately, early in March, Mr. Dickerman, one of the committee of three, became critically ill and could give no assistance. Of the two other members of the committee, President Thwing had been chairman of the faculty, and Dr. Waite, who, since June 1915, had held the designation of professor on the faculty, was a member of both standing committees. This committee of three faced many and serious problems, among which was the unfinished building upon which the contractors were lagging.

The first problem was to secure return of the school to the reputable list of the Ohio State Dental Board. Upon assurance to the officers of that board that a committee appointed by the trustees had taken control of the school, that none of those primarily responsible for recent conditions would be included in the new organization, and that the new faculty would include but a few of the current teachers of dental subjects, these officers agreed to recommend return of the school to the reputable list as soon as a meeting of the Board could conveniently be called. The board was sympathetic and cooperative and on March 20, 1917 this was done.

The second problem was to attempt to repair in some measure the deficiencies of instruction which the students, es-

pecially the seniors, had experienced. This was difficult since some members of the teaching staff were hostile to the forthcoming change, and it was not possible in a half year to repair the deficiencies both in instruction and in student effort that had been prevalent for two years.

The next problem was to plan the curriculum for the class which was to enter on the new plan of a four-year course. This was primarily the task of the curriculum committee which consisted of Dr. Belford, Dr. Henahan, and Dr. Waite. On March seventh this committee reported five plans for the four-year curriculum, one of which was adopted. In compliance with the plans adopted by the National Association of Dental Faculties, over three-fourths of the work of the first semester of the first year was devoted to subjects which heretofore had not been in the dental curriculum; namely, biology, physics, English, and drawing. Adoption of the details of the second, third and fourth years was deferred until the reorganized faculty should be in session.

The most important problem was the reorganization of the teaching staff. Since the faculty of the School of Dentistry did not hold their appointments under university authority, that body could not be permitted to nominate candidates for appointment to teaching positions by the university trustees. Therefore this became a duty of the committee of three of whom but two were active. As soon as Dr. Casto was selected for the deanship, although not yet appointed, he became an adviser of the committee, and essentially a member.

The teachers of the medical science subjects caused no concern because this work was to be done at the medical school; the teachers were in service, and against them there had been no criticism. It was decided to select young men to teach the new subjects of biology, physics, English, and drawing, since these subjects would be discontinued when a year of college work was required for entrance. The committee then contemplated that this would be delayed only a few years.

The first question in reorganization concerned the teachers of the major dental subjects of operative dentistry and pros-

thetics. Fortunately Dr. George H. Wilson was willing to resume temporarily his position as professor of prosthetics and metallurgy which he had resigned in 1905. Thereupon he became a helpful adviser of the committee. For the professorship of operative dentistry and superintendent of the clinic was selected Dr. W. H. O. McGehee, a graduate in both dentistry and medicine, who had had nearly twenty years of successful experience in dental teaching.

Of the twenty-two members of the teaching staff of 1916-17 in the School of Dentistry, other than those who were also on the medical faculty, it was decided to select seven, five of whom were dentists. Four of these seven held professorships in 1916-17, but since these designations had been given after short service, these men were asked to take the title of assistant professor, conforming with the restrictions of titles in other departments of the university. They graciously acceded to this request.

The selection of the new faculty could not be completed in time for the meeting of the university trustees on June thirteenth, but on July 2, 1917 the executive committee of the trustees appointed the new faculty of eight professors, six assistant professors, six instructors, and six lecturers, a total of twenty-six, with Dr. Casto as dean and Dr. Henahan as secretary. The next day the list of the new faculty appeared in the local papers.

The first meeting of the new faculty was held September 10, 1917. At this time the war fervor was high and it was uncertain whether dental students would be exempt from the draft. This was the beginning of uncertainties caused by the war that continued actively for more than a year, and of results which continued for three years. These conditions delayed the rapid rehabilitation of the school.

In September the equipment was moved from the old quarters on East Ninth Street and an equal amount of new equipment installed, and on October 1, 1917 the first session in the new building on Adelbert Road, and the first session of this university era opened.

This year's entering class numbered sixty-three under the four year curriculum, and the total enrollment was 199. There

was no sophomore class in 1917-18, the freshmen of the previous year being under the three-year plan and called juniors.

Both administration and faculty were firmly determined to make a school of high grade, in spite of the opinion freely expressed by some who were no longer connected with the school and who were friendly to the former management that it was impossible to carry out a reform in the school.

One of the matters needing attention was improvement of student accomplishment. To this end two standing committees were appointed and several members of the faculty named to these committees, so that, in contrast with the conditions of the affiliated era, there should be a large participation in the conduct of the school. In order that all should know the details of reorganization, the plan of monthly faculty meetings was adopted. Ten faculty meetings were held during the year 1917-18 in contrast to one or two a year in the affiliated era.

Definite rules on promotion were adopted, and the passing grade advanced from 65 to 75 per cent., and 85 per cent. attendance was required. The first case of scholastic dishonesty, which appeared early in the session, was met by expulsion.

The two classes taken over from the affiliated era were found to be deficient in performance and after the mid-year examinations, these classes were subclassified. A considerable number were dismissed and others demoted to a lower class. As a result, from the sixty-three men who entered the senior class in October 1917, only thirty-eight were graduated in June 1918, while twelve were required to work during the summer and graduated in October. The result of this rigor in requirement was that, whereas over fifty per cent of the last class graduated in the affiliated era in 1917 had failed to pass the licensing examinations, of the first class graduated in the university era in June 1918 only three per cent failed in licensing examinations. It was apparent that reform was possible and had become effective.

Near the end of the year the instructor in chemistry and physics who had been brought to the school in September 1917 resigned to enter the army. It was decided to secure an experienced teacher to fill the vacancy and Dr. Henry H. Hosford

was appointed as professor of chemistry and physics. He came from a successful teaching experience of over thirty years and began a successful teaching career of twelve years in the School of Dentistry.

Dr. George H. Wilson, who a year before had consented to serve temporarily as professor of prosthetics and metallurgy, resigned at the end of the year and was made professor emeritus.

His influence on dental education in Cleveland in the early years had been large and he well merited this title of emeritus.

Also at the end of this year Dr. Macleod resigned as professor of physiology in both the medical and the dental school, and was succeeded by Dr. Carl J. Wiggers.

A proposal to remove the dental school to the university campus had been made as early as 1902 and renewed in subsequent years. Each time it was defeated because of the belief that clinical patients essential for teaching would not travel to a location so remote from the poorer districts of the city. When the removal was made in 1917 some predicted, and others feared, a dearth of clinical patients. Happily these fears proved unfounded and the attendance in the clinic increased so that there has been a plentiful supply for teaching purposes in every year in the new location. Toward the end of the year definite action toward building up a school library began.

During 1917-18 nearly all the students were members of the Medical Enlisted Reserve Corps. While this relation brought many additional duties to the school administration, it served as a spur to better work on the part of the students. In spite of the disturbance of war conditions, this first year of the university era was marked by great improvement in educational conditions in the school and showed that vigorous work by administration and faculty promised eventual complete rehabilitation.

The beginning of the second year of the university era saw more disturbance from war conditions. The change of status of students from the Medical Enlisted Reserve Corps to active duty in the Student Army Training Corps caused military discipline to supersede school discipline.

Expectation that under control of the government the

school would be in session twelve months in the year necessitated revision of the curriculum and the time required for military drill made new schedules imperative. All this brought much confusion. Adjustment to these new conditions was yet incomplete when the armistice was signed. All the new plans were abandoned, and a readjustment to former conditions was necessary. Added to this was the fear of invasion of the influenza epidemic. The total result was that the first semester of 1918-19 was marked by confusion rather than by an orderly educational process, and most of the second semester was devoted to guiding the work of instruction back into regular channels.

The vigorous elimination of unsuccessful students at the end of the previous year and the fact that others left school to enter the army depleted attendance to a total of 154. This does not include a considerable group who, attracted by government support, entered at the beginning of the year, but withdrew as soon as the armistice came, either because of lack of funds to continue, or because their entrance had been influenced less by interest in dentistry than by an opportunity for military service far from the battlefield.

There was no junior class this year, the freshman and sophomore classes having entered under the four-year curriculum, and the seniors in 1916 under the three year curriculum. This senior class was the last to have entered during the affiliated era. At the beginning of the session it numbered seventy-two. Six were dismissed before the session was completed.

Of the sixty-six who remained, forty-seven were graduated in June, eleven required to work until October, and then graduated, and eight required to repeat the senior year. Largely because of the confusion caused by military matters, twenty per cent of the class failed to pass the licensing examinations.

The third year of this university era opened under more favorable conditions. There would have been no senior class except that eight men, the last to be inherited from the affiliated era, had been required to repeat the senior year.

Of a total enrollment of 190, 107 were in their first year. They constituted the largest first-year class in the entire history of the

school. This was a result, seen in all schools, of an accumulation of those who, because of war conditions, had not entered in the two previous years. Because of the size of this class men were added to the teaching staff and several subjects were taught in two sections.

When in 1917 the university took control of the School of Dentistry it was recognized that the entrance requirements which, since 1910, had been nominally graduation from a four-year high school, would soon be advanced to one year of college of arts, but no attempt was made to set a definite date. Discussion was postponed on account of war conditions, but in December 1919 it was resumed.

The year 1919-20 was marked by much improvement in all relations of the school. Although some result of the two-year war involvement remained, the instruction and the work of students were distinctly better than in any previous year. The year 1920-21 opened with a registration of 223.

Since the founding of the school a member of the faculty had acted as registrar. The duties of caring for the details of entrance and recording of grades of the large number of students had come to interfere seriously with the teaching duties of any faculty member who was assigned to this work. Therefore it was decided to bring in someone with experience in education as a fulltime registrar. John Faris Berry was secured and began effective service that continued for thirteen years. New and much more extensive record blanks were adopted. .

This year Dr. I. L. Furnas, came from ten years of successful teaching experience to the professorship of prosthetics, which post he filled with distinction for over seventeen years. This professorship had been unoccupied for the two years since the resignation of Dr. George H. Wilson, the teaching being carried by instructors during these two years.

In December 1920 Dr. W. H. O. McGehee resigned as professor of operative dentistry and superintendent of the clinic. He had been a member of the faculty since September 1917 and now withdrew to enter private practice. In this emergency, after an absence of sixteen years, Dr. W. H. Whitslar consented to

return to the faculty as acting professor of operative dentistry. The superintendency of the clinic was entrusted to Dr. A. J. Taylor, an instructor who had been on the teaching staff since 1917.

The library of the Research Institute of the National Dental Association, which had discontinued after several years in Cleveland, was acquired this year, greatly increasing the school's collection.

On March 8, 1921 the faculty voted to recommend to the trustees that, effective in September 1922, the entrance requirements be advanced to one year of work in a college of arts or science including certain specified subjects. The trustees approved this recommendation, and in the catalogue printed in May 1921 it was announced, the usual interval of one year between announcement and enforcement being given.

Thirty-two students were graduated at the end of this year and two more in September. With the graduation in June 1921 of this first class which had had all of its work in the university era, the rehabilitation from the wretched conditions that characterized the final years of the affiliated era was accomplished. It had taken persistent endeavor through four years. It would probably have been done in three years except for the interruptions arising from the war in 1917-18 and 1918-19. The confidence of the alumni and of the profession had been restored. The predictions of a small group, connected with the discredited affiliated era, that the school could not succeed under the new organization had been proved unfounded, and their efforts to arouse dissension in the school had largely ceased. Now the advances which in 1917 had been tentatively planned could be begun.

The Period of Advance (1921-27)

The thirtieth year in the history of the school (1921-22) was one of many accomplishments. It opened with the largest enrollment in its history, 254. The first year class, the last that could enter without previous college work, was large. Notwithstanding the fact that only high school graduation was re-

quired for entrance, over one-third of the entering class had attended a college of arts or science. The opening of the school was advanced ten days to accord with the date of opening of other schools of the university and this resulted in more weeks of instruction.

Requirements were increased in amount and in quality of work in the dental subjects, both technical and clinical, and for the first time facilities were provided for sterilization of all instruments used in the clinic. During this period the public service in the clinic increased to approximately 30,000 operations a year. A new and comprehensive system of reports and records both in clinical and scholastic matters was put into operation. More definite rules as to removal of conditions and as to promotion from class to class were adopted to bring about early elimination of incapable students, and the procedures regarding discipline were more definitely formulated than ever before. The library was much enlarged and its operation improved, so that students used it more frequently and more effectively.

Certain regulations determining the ranks of teachers to constitute the faculties of the different schools in the university had been adopted by the trustees. Professors and associate professors were in all cases to be faculty members, but other ranks to be entitled to membership were left to the discretion of each faculty. The faculty of the School of Dentistry, therefore, in September 1921, voted that this faculty should consist of professors, associate professors, and assistant professors, and attendance at faculty meetings of instructors and demonstrators was terminated. In 1931 the further restriction was made, that assistant professors should not be considered members of the faculty in the first term of their appointment to that title.

On November 9, 1921 Dr. Charles F. Thwing, after thirty-one years of service, resigned as president of the university. He, more than any other individual, was responsible for the founding of the School of Dentistry. He had been its constant friend through periods of success and of adversity, and had given a prodigious amount of thought and work to the promotion of



FRANK M. CASTO, 1917-37
WILLIAM L. WYLIE. SINCE 1937

THE DEANS OF THE SECOND QUARTER CENTURY

dental education in Cleveland. As a small measure of appreciation of this service, this history is dedicated to his memory.

In a series of nine faculty meetings of this year, the content and methods of teaching of each subject in the curriculum were discussed and the studies served as a basis of correlation of instruction in the several departments.

The School of Dentistry had been a member of the National Association of Dental Faculties since 1894. The majority of the schools in that association had always been of the proprietary type. Every attempt to advance the standards of dental education had been vigorously resisted by this element, and several advances that had been voted were later rescinded.

Some of the university dental schools came to the conclusion that to continue with the National Association of Dental Faculties was hopeless, and in 1908 six of these schools organized the Dental Faculties Association of American Universities. The membership in this association gradually increased.

In February 1922 the School of Dentistry of Western Reserve University was invited to join this association and did so, resigning from the National Association of Dental Faculties. In 1923 in a general consolidation of dental associations the American Association of Dental Schools was formed and since that time the university schools have maintained only a conference group in which the School of Dentistry of Western Reserve University has continued to participate. In March 1922 a chapter of the dental honorary fraternity was established in the school.

On April 14, 1922 Dr. George H. Wilson, one of the founders of the School of Dentistry, died. He had been on the faculty from 1892 to 1905, and again at the beginning of the reorganization in 1917-18 and had large influence in the early history of the school. He had a nation-wide reputation and was one of the most beloved teachers that the school ever had.

In 1922-23 the marked improvement inaugurated in the previous year was continued. An enrollment of 197 was a considerable reduction from the attendance of 254 the previous year and was due largely to a small entering class, a condition normally present the first year of an advanced entrance requirement.

At the beginning of the year Dr. William L. Wylie came as assistant professor of operative dentistry. A graduate in science and in dentistry, he had had ten years of experience in teaching—seven of them as superintendent of high schools and three in teaching dentistry. This educational experience in both administration and teaching prepared him well for the notable service he has continued to give to the school.

The entrance of a class with one year of preparation in an undergraduate college caused abandonment of the course in inorganic chemistry. This had been a part of the curriculum since the founding of the school. Also, the courses in biology, physics, English, and drawing that had been given for five years past no longer were given. Some much needed space in the dental school was thus released and a change in the curriculum and schedule for the first year class was made possible.

One of the important matters in this year was the classification of the school. Beginning about 1900 discussion had continued in dental associations of methods of securing greater uniformity in dental education. In 1909, to aid in accomplishing this, the Dental Educational Council of America, composed of equal representation from the National Dental Association, the National Association of Dental Faculties, and the National Association of Dental Examiners was formed. Little had been done by this council except to announce in 1913 that it proposed to inspect all dental schools, and to classify them into three groups designated A, B, and C, following the plan already in operation in medical education.

In 1917 among the congressional war measures was one establishing the Medical Enlisted Reserve Corps to which should be eligible, among others, the students in "well-recognized" dental schools. There was no standard for determining which dental schools should be considered as well recognized. Thereupon the surgeons general called upon the Dental Educational Council for advice.

This council made an inspection of all dental schools early in 1918 and in August published a classification. At that time the School of Dentistry of Western Reserve University was voted as

B, i. e. second class. No more could have been expected since the school was but one year away from the disrepute of the affiliated era.

In March 1922 the school asked a second inspection and a bill of particulars as to the respects in which it failed to meet the qualifications of an A school. During the next year effort was made to meet the numerous, but relatively minor, criticisms. Another inspection was requested. It was made early in May 1923, and on May 30, 1923, by vote of the council, an A rating was given. Thus, in less than six years under university control, the school had advanced to the point where it was given official national designation as a first rate school.

That the advance in entrance requirements would reduce the total enrollment in the school was recognized, since large classes entering under high school entrance requirements would be graduating and the smaller classes entering under a college requirement would not compensate in numbers. However, it was expected that the quality would be improved. The class that entered in September 1923 was much larger than the previous one.

At this time Robert E. Vinson began his duties as president of the university, succeeding James D. Williamson, who had served as acting president for nearly two years following the retirement of President Thwing.

The subject of crown and bridge received greater attention this year. In the early twentieth century it had made more rapid advance than any other phase of dentistry and had come to be an important feature in dental practice. When this school was founded in 1892 little attention was given to this subject in any dental school, but as it grew in importance instruction in it was, in this school, attached to prosthetics as a minor feature. During the reorganization in 1917 crown and bridge was known to deserve more attention, but other demands were more imperative.

Finally, in 1924 it was decided to give more consideration to this subject and Dr. Theodore W. Maves was appointed professor of crown and bridge work. He began service in September,

1924, coming from several years of successful teaching in another university dental school.

On June 14, 1924, Dr. Henry L. Ambler died. He had been one of the founders of the School of Dentistry and served on its teaching staff for its first fifteen years and as dean for fourteen years.

The removal of the School of Medicine in the summer of 1924 to its new building near the School of Dentistry not only afforded much better teaching facilities in the medical sciences, but also simplified the schedules of the first and second years, since no longer did dental students have to travel four miles between the two schools.

The entering class again in September, 1924, showed a large increase, and it was evident that the response to the requirement of one year of college work for entrance confirmed the wisdom of the advance. Moreover, the students were doing better work and the number of conditions and failures steadily decreased. It was possible, also, to improve the quality of teaching to these students, who were more mature and who had had better general education.

This experience was repeated in 1925, and the men who entered were selected, none being admitted with conditions. Many of them had had more than one year of study in an undergraduate college. It became evident that the time had arrived for consideration of still further advances.

When the advance to a requirement of one year of college preparatory work was adopted in 1921, several members of the faculty felt that this was but an intermediate step and that two years of college work would ere long be required for entrance. Soon after President Vinson came in 1924 he expressed the opinion that this step should be taken within a few years.

In 1925 there arose a discussion among dental educators as to what would be the ultimate plan in dental education, and some schools adopted a requirement of two years in undergraduate college and three years in the dental school. When this question was discussed in the faculty of the School of Dentistry

of Western Reserve University it was decided not to decrease the length of the dental curriculum, but ultimately to adopt a plan of two pre dental years, plus four years in the dental school. The fact that after more than ten years of discussion all dental schools have adopted this plan shows that our early decision was wise.

In 1925 was published an alumni catalogue, the first since 1905, and really the first complete catalogue in the history of the school. It showed a total of 1,007 graduates including the class of 1925. At the same time was published a list of 374 students who had not remained until graduation. However, one-third of these had continued the study of dentistry and graduated from some other dental school. In the same year also was published a list of all the teachers in the School of Dentistry in the third of a century of its existence. This list contained 209 names, and analysis showed the average length of service to be less than three years. This called attention to one of the great problems of American dental education, namely the instability of teaching staffs in all dental schools.

During the year 1925-26 the advance of entrance requirements was discussed in faculty meetings and on June 10, 1926, the faculty voted to recommend to the trustees that two years of college work be required for entrance beginning in September, 1927. The trustees approved. In June, 1926, was graduated the first class that entered with one year of preparation in an undergraduate college. In December, 1926, the trustees authorized two combined courses. One provided that a student who had had three years of work in an undergraduate college might, by satisfactory work in the School of Dentistry, complete the requirements and receive the A.B. degree, and the other that a student who had completed two years in an undergraduate college, by two years of work of distinction in the School of Dentistry, might receive the B.S. degree. Late in the year 1926-27 Dr. John H. Hood resigned as professor of oral hygiene and periodontology. He had been on the teaching staff for over fifteen years, during eight of which he held a professorship.

The six years from 1921 to 1927 were a period of continued

advance. The number of conditions and failures definitely decreased. The graduates were so successful in licensing examinations that a failure came to be a rare occurrence, the last one having occurred in 1921.

Matters of discipline diminished each year. The teaching grew steadily better. Some courses new to dental education were introduced here for the first time in any dental school. Among them was a junior course in general hygiene, first given in 1923. In 1924 were introduced a course in the principles of ethics as a preliminary to the course in professional ethics of the senior year, a course in dental economics, and a course in dental history. A course in fundamental general technics from the standpoint of applied physics and applied chemistry to serve as a basis for the more particular dental technics was first given to freshmen in 1925 and has been copied in many dental schools since that time.

The library showed continual growth and the employment of a librarian brought extended use of the library by students. When, in 1927, this second period of the university era closed, the friends of the school were able to look back upon ten years, each of which showed its particular improvement with no backward step. The school now had the confidence of the dental educators of the country and the alumni had changed from an attitude of criticism and lethargy to one of enthusiasm. The attitude of other schools of the university toward the School of Dentistry had much improved and in all respects this school seemed to be on a firm foundation with high reputation for giving efficient training.

The first decade of the university era was marked by many improvements. First there was recovery from a decadent condition the influence of which lasted for three years. After that there was steady advancement. In these ten years the budget of the school had doubled from about \$51,000 in 1917-18 to about \$104,000 in 1926-27.

These improvements were made possible by the interest in the school of the three university presidents of the era, Dr. Thwing, Dr. Williamson, and Dr. Vinson, by the sympathy and

encouragement of the university trustees, by the moral support of the alumni and profession, by the hard work of the teaching staff, and the marked devotion of a considerable number of them, and by the increasing effort of most of the students.

The Period of Stabilization Beginning in 1927

The thirty-five years of the history of the School of Dentistry had included a considerable number of advances in entrance requirements, four increases in the length of session, and one increase in the number of sessions. At no time had these three factors jointly remained the same for more than five years.

With the entrance in 1927 of the first class to have two years of collegiate predental work it was the consensus of opinion of faculty and administration that there would be no further increase in years of predental work required for entrance, nor any increase in the number of sessions in the dental course for many years. In 1940 this opinion is still held.

In 1927 the future problems in the conduct of the School of Dentistry were no longer those of increasing the amount of instruction to the prospective dental practitioner, but those of improvement of the instruction. Many factors entered into this. Among them may be mentioned improvement and increase of teaching equipment, more efficient organization and correlation of the several subjects and courses to avoid duplication, some change in content and sequence of courses, introduction of some new courses to broaden the education of the student, development of an experienced teaching staff and stabilization through increasing the number of full time teachers, increase of the library and its use, securing of closer working relations with the hospitals, and encouragement and promotion of research by some members of the teaching staff.

It was recognized that this would be a long, slow process involving careful planning and direction and entailing considerable expenditure of money. To this end was formulated a ten-year program of development in which these several phases of improvement and growth would be undertaken, but without any dramatic changes.

The progress from 1927 to 1940 therefore consists of a series of minor changes having cumulative effect. It would be tiresome to enumerate these completely, and therefore only some of the more influential ones are noted. Prosecution of the program gathered momentum in the first two years, but was interrupted by the unforeseen economic conditions that began in 1929, and in the decade from 1930 to 1940 the major effort had to be to avoid any deterioration and make minor changes which would not involve large expenditure.

In December, 1927, Dr. W. H. Whitslar, who had served for seven years as acting professor of operative dentistry, resigned, and was made emeritus professor in this subject and also professor of dental ethics and dental history. After over five years of successful work in the school, Dr. William L. Wylie was appointed professor of operative dentistry.

As had been foreseen, the advance of entrance requirements brought a smaller entering class. Only twenty students entered in 1927, but the proportional diminution was not so great as when, five years earlier, the change was made from high school preparation to one year of collegiate predental study. Immediately recovery in the size of the entering class began. Forty-nine entered in 1928 and forty-seven in 1929. Then came the general economic depression and the size of entering classes decreased because of the inability of prospective students to meet the cost of a professional education. For nine years from 1930-31 to 1938-39 the number entering ranged between thirty and forty-three. In 1939-40 the increase appears to have been resumed with an entering class of forty-eight, equal to that in 1929. The cumulative result of small entering classes brought in 1933-34 a total enrollment in the school of only one hundred and five, the smallest since 1910. Reduced attendance was characteristic, however, of all dental schools of the country.

The first hospital teaching of dental students was in 1928-29 when, in the course in physical diagnosis, students were taken to City Hospital where, in bedridden patients, they saw certain diseases related to dentistry. At the same time definite arrangements were made with the Babies and Childrens Hospital so

that a member of the teaching staff of the School of Dentistry went there regularly to treat patients with dental disease and to give some instruction to students by using this teaching material.

In this year came an increase in the number of full-time professors teaching dental subjects with the appointment of Dr. Thomas J. Hill as professor of clinical oral pathology and therapeutics. He also gave the laboratory courses in pathology and dental pathology.

In the final year of the affiliated era four professors in the School of Medicine, those of anatomy, bacteriology, histology, and physiology, held the same designations on the dental faculty. In the reorganization three of these were appointed professors on the new dental faculty. In the period of stabilization it was hoped to enlist the personal interest of all the heads of departments of medical sciences at the School of Medicine by appointing to the dental faculty each in whose department dental students were instructed.

Under this policy in 1928 the professor of pathology, in 1929 the professor of biochemistry, and in 1932 the professor of anatomy in the School of Medicine became members of the dental faculty. As changes in occupancy of these professorships in the School of Medicine have arisen by resignation or death, the successors have become members of the dental faculty, so that since 1932 six professors of the School of Medicine have been professors on the dental faculty. Some of these have developed helpful personal interest in the School of Dentistry.

In June, 1929, Dr. Theodore W. Maves, in order to give all his time to private practice, resigned from the professorship of crown and bridge work which he had occupied for five years. This vacancy was not immediately filled, the instruction being carried for several years by a man of grade lower than professor.

The first baccalaureate degrees under the combined courses were given in 1929. Since then degrees of A.B. and B.S. given under that plan up to and including 1940 aggregate one hundred and eight.

With the increase in the number of students and the rapid

development of the school the duties of the dean increased. Dean Casto wished to have assistance in administrative duties and in 1929 Dr. William L. Wylie, professor of operative dentistry, began service as assistant dean

In 1929-30 the teaching of biochemistry was transferred to the laboratories of the School of Medicine and by this transfer the School of Dentistry took full advantage of laboratories in other schools so that the laboratory space in the dental school building could be restricted to subjects that are particularly of a dental nature.

Dr. Henry H. Hosford resigned in May, 1930, after twelve years of excellent service in the School of Dentistry which included teaching of physics, inorganic, organic, and biological chemistry, and metallurgy. As entrance requirements had been advanced to include some of these subjects the field of his teaching became restricted until in the last year there were only metallurgy and dental materials. He had a total teaching service of forty-four years in three different institutions, and on retirement was appointed an emeritus professor. To this vacancy was appointed, as assistant professor, Dr. E. W. Skinner, who came from an experience as professor of physics, and he increased the instruction in dental materials and developed a new type of course designated basic dental technology. The value of such a course has been amply proven in the ten years it has been in the curriculum.

In 1930-31 a seminar course for the seniors was introduced. Also, Dr. Frederick C. Waite began to give the course in dental history to seniors, which was extended to include a dissertation by each student. These two features caused much more extensive use of the library, so that consultation of and circulation of library books became ten times what it had been five years before.

On December 11, 1930, occurred the death of Dr. Will H. Whitslar, the professor of ethics and dental history and professor emeritus of operative dentistry. He had been one of the founders of the school and in its early years had carried not only much teaching, but many details of administrative work. His in-

fluence toward high ideals and effective training was potent, and the School of Dentistry owes him much. His total teaching service was twenty-two years, twelve years in the medical school era and ten years in the university era.

At times for more than ten years the question of a dental service on the staff of the University Hospitals had been discussed. Earlier one individual had acted as visiting dental surgeon at the hospital, but he was not nominated by the faculty of the School of Dentistry. When the university hospital was moved to a site near the School of Dentistry this discussion was renewed and in December, 1931, a division of dental surgery of the visiting staff was organized in the hospital, the nomination of its personnel to come from the faculty of the School of Dentistry.

This proved to be a stimulus to students to seek hospital internships. As a result the establishment of dental internships in hospitals of the city has increased and more and more graduates have chosen to take such additional training. Further stimulus was given in 1939 when Dr. S. M. Weaver of the class of 1899 and Mrs. Weaver established support of an internship in the university hospitals in memory of their son, Dr. Marshall Weaver of the class of 1935.

The year 1931-32 completed forty years of the School of Dentistry. In that period, 1894 to 1932 inclusive, the number of graduates was twelve hundred and forty-four. The majority of these have practiced in northern Ohio, especially in Cleveland, and the high reputation of the dental profession in northern Ohio for skill and for public service is largely due to the graduates of the School of Dentistry of Western Reserve University.

In these years the number of graduates was not far different in two other professional schools of the university that had existed throughout the period. From the School of Law, 1,431 students and from the School of Medicine 1,304 had been graduated, a total of nearly four thousand from these three professional schools in forty years.

The year 1932-33 brought a much restricted budget and at times it seemed doubtful whether the School of Dentistry could continue and maintain its standards. The dental faculty showed

a fine spirit of self-sacrifice in this emergency and this alone prevented the school from closing. Accepting without complaint more work and less salary the teaching staff carried the school through its darkest days of the university era, a service which was acknowledged publicly by the university administrative authorities.

In June, 1933, Dr. William C. Stillson, who had been on the teaching staff for seven years in the affiliated era and for sixteen years in the university era, was promoted to the title of professor of dental anatomy, a subject he had taught efficiently for many years.

In December, 1933, after ten years of service, Robert E. Vinson resigned from the presidency of the university. Winfred G. Leutner succeeded under the title of acting president, and at the end of the academic year was appointed president.

In January, 1934, Mr. John F. Berry resigned as registrar to accept a similar position in the School of Medicine. Mr. Berry, during his thirteen and a half years of service, had relieved administrators and teachers of many duties and greatly improved the promptness and accuracy of the office routine. He also contributed certain other intangible, but very valuable, additions. With restriction of the budget it was decided not to appoint a full-time registrar, but to ask a teacher to assume these duties. The work of the registrar was therefore assumed by Assistant Dean Wylie.

At the end of each year throughout the history of the school some men had withdrawn from the teaching staff. These were usually demonstrators who resigned to devote all their time to practice. Under normal conditions new men were appointed to replace those who had withdrawn, but now such replacements could be made only when absolutely necessary. The result was that the size of the teaching staff became smaller than at any time since the beginning of the university era.

During the greater part of the year 1936-37 Dr. Frank M. Casto was absent from his duties as professor of orthodontia and dean, having been given a leave of absence, and Dr. W. L. Wylie was made acting dean. In June, 1937, Dr. Casto resigned from

both of these positions. He had been dean throughout the university era. His efficient and wise leadership during twenty years was the major factor in the development of the school. With a broad education, including graduation in dentistry, medicine, and pharmacy, and with successful teaching experience, a wide acquaintance in the American dental profession, maturity, and a charming personality, he brought abilities and qualities to the deanship that are rarely found. He looked upon his work in the school as a professional duty to be performed with the same regard for professional ethics as a practitioner maintains toward a patient, that is, to do everything possible to bring about improvement.

Dr. Casto's work was done with much sacrifice of time, energy, and income, and with punctilious regularity. During his administration of twenty years there were eighty-seven faculty meetings and the records show that he was in attendance at all of these except three in 1936-37 when he was on leave of absence and was away from Cleveland. At no time did the small honorarium paid him cover the additional personal expenditures that connection with the school entailed. The work required not only attendance at the school, but frequent committee meetings and conferences both in his office and in his home. The writer of this history, who worked intimately with him in the interests of the school through these twenty years, knows from this personal contact the great amount of labor and of interest that Dr. Casto gave to the office of dean. His term as dean was the longest in the history of the school and was also, by far, the most effective. The trustees, in appreciation, appointed him professor emeritus and dean emeritus.

In June, 1937, also, Dr. Joseph P. Henahan resigned as professor of anesthesia and exodontia and as secretary of the faculty. He had taught in the school continuously since 1914, a period of twenty-three years, and had served as secretary throughout twenty years of the university era. In this teaching of this most critical phase of dental practice he gave to the students some measure of his wide knowledge and great skill in his special field, and imbued them with appreciation of the meticulous care

that must be exercised in it. As secretary of the faculty he was the constant and close adviser of the dean in all matters of administration and devoted much attention to work on various committees. Being a graduate of the school he was in a position to enlist the interest of its alumni. He was made emeritus professor of anesthesia and exodontia. Both Dr. Casto and Dr. Henahan left Cleveland and continued practice in California.

The withdrawal of these two men from the administration in June, 1937, left two important vacancies, but this had been foreseen for some years and the transition was made without any interruption. Dr. Wylie, who had served for seven years as assistant dean and for one year as acting dean, was appointed to the deanship and Dr. W. W. Hurst, who had been on the teaching staff for fifteen years, was elected secretary of the faculty. The efficient work of these two in these offices shows that both choices were wise.

The year 1937-38, the first in the new administration, brought to the fore several matters of importance regarding both personnel of the teaching staff and policies.

Dr. I. L. Furnas, professor of prosthetics for over seventeen years, resigned in January, 1938, to enter private practice in California. He had been an efficient teacher and director of his department and had much improved the organization and teaching of prosthetics. With his withdrawal there was now left no professor of any dental subject who had held the same title in the period of rehabilitation. More than any other member of the faculty, Dr. Furnas had taken interest in extra-curricular activities of the students. Under his direction matters concerning fraternities, athletics, and relations of dental students to general university student activities had been brought into orderly procedure where they caused little concern to the administration. Also during the past few years Dr. Furnas had done important service in acquainting students in many undergraduate colleges with the relation of dentistry to general public health, in showing the desirability of dentistry as a professional career, and the details of dental professional education. Incidentally, the place of the School of Dentistry of Western Reserve University in

American dental education was communicated to some prospective dental students.

Throughout the administration of Dean Casto a weekly informal conference of the more mature members of the faculty had been held, at which were discussed many matters in the working of the school. With the advent of new faculty officers it was believed that this might well be made more formal and include the president of the university and representatives of the medical sciences. Therefore in February, 1938, was formed a Committee on Policy which is a major advisory committee of the faculty. It consists of the president, the dean, the secretary, and four members appointed by the president, two to represent the medical sciences and two to represent dental subjects. This committee considers various questions brought to it and inaugurates some policies which after discussion in the committee are referred to the faculty for further discussion and action. It has proved an efficient method of securing prompt and orderly action in various phases of the work of the school. The formation of this committee brought some reorganization of former standing committees.

In June, 1938, Dr. Robert P. Dressel, who had been on the teaching staff for fifteen years, was appointed to the professorship of crown and bridge work which had been vacant for nine years, Dr. William W. Hurst to the professorship of prosthetics, vacant for a few months, and Dr. John A. Sweeney, who had been on the teaching staff for twenty years, to the professorship of anesthesia and exodontia, vacant for one year. These appointments brought the number of professors in dental subjects to six. All had had at least fifteen years of teaching experience. Half of them were graduates of this school.

From 1932 to 1937 a considerable part of the ten-year program formulated in 1927 had been deferred on account of the restricted budget. Also because it was appreciated during this time that a change in the school administration would soon come, it was considered wise to leave to the new administration the inauguration of certain changes. Some of these improvements have already been accomplished and others are under way.

Here ends the general account of forty-eight years of the history of the School of Dentistry of Western Reserve University. Many things of interest have been omitted to bring the account within a reasonable limit of space. It is with particular regret that the writer has been compelled to limit mention of individual teachers to those who have attained the title of professor. A large part of the successful growth of the school has been due to the faithful work of men holding positions below this grade. However, all of these junior men are included in Appendix V where all teachers are listed.

CHAPTER X

ENTRANCE REQUIREMENTS AND THEIR DEVELOPMENT IN THE SCHOOL OF DENTISTRY OF WESTERN RESERVE UNIVERSITY

One extensive change in professional education in the twentieth century was particularization of preliminary education and the development of technique in administration of entrance requirements.

Since, in this as in many other matters, dental schools followed the lead of medical schools, a brief review of what happened in the nineteenth is a necessary prerequisite to the understanding of events in the twentieth century.

After 1810 medical schools gave no attention to preliminary education. They accepted college graduates as well as those who could barely read and write and attempted to teach them in the same classes. Early dental schools followed the same plan when dental institutional education began in 1840. Many medical and dental educators held that, compared with innate ability and aptitude, education prior to entering upon the professional course was of small importance.

There is no record before 1866 of official suggestion regarding the preliminary education of those who planned to study dentistry. It was in this year that the American Dental Association adopted a resolution that the dental student should possess "at least a good moral character and a good English education." This was considered a great educational advance and it received favorable editorial comment in many dental journals.

However, it had little effect. A few months later in 1866 the short-lived Association of Colleges of Dentistry was organized. In the proceedings of this association for 1866 and 1867 no mention is made of preliminary education. At the meeting of 1868 the dean of the Ohio College of Dental Surgery stated that admission to his school required a good English education and advocated this for all schools, but the association took no action and the next year the association disbanded.

At the first meeting of the Ohio State Dental Association in 1867 dental education was extensively discussed, but only one speaker alluded to preliminary education. Laws regulating the practice of dentistry were enacted in 1868 in Kentucky, New York, and Ohio without reference to preliminary education.

Up to 1884, few dental schools made reference to preliminary education, although the first three schools with university affiliation, namely Harvard Dental School, the College of Dental Surgery of the University of Michigan, and the Dental School of the University of Pennsylvania had loose regulations concerning it.

In 1884 ten of the twenty-three dental schools organized the National Association of Dental Faculties and adopted a resolution that all member schools shall require a good English education for entrance.

This phrase "good English education" had been also used by a similar medical association organized in 1879 and was reaffirmed when the Association of American Medical Colleges was established in 1891. The Medical Department of Western Reserve University followed the standards of this association. Since this had become a standard in two types of professional schools it is desirable to know what this indefinite phrase actually meant.

The action of the National Association of Dental Faculties in 1891 affords some idea of the meaning of this favorite phrase. A resolution was offered to advance the requirements of preliminary education from "a good English education" to completion of the grammar grades in the common schools. This the normal youth, entering school at six years of age, would do in eight years. The proposal was defeated. This shows that "a good English education" was considered to be less than completion of the eight grades of common schools.

When the Dental Department of Western Reserve University was founded in 1892 it announced that it would follow the standards of the National Association of Dental Faculties of which it became a member in 1894. The standards of the School of Dentistry of Western Reserve University were, for nearly thirty years, those of this Association. Therefore in 1892 the minimum

entrance requirements of both dental and medical schools were somewhat less than completion of the eighth grade of the common schools.

The two college associations, one medical and the other dental, both advanced the requirements of preliminary education from time to time in the next forty-five years, but the medical advance, though it started from this same level, was more rapid. This fact reflects the more rapid decrease of the preponderant influence of proprietary schools in medical education. In both types, however, proprietary schools opposed any advance in required preliminary education because it meant fewer students and therefore less income from tuition—the main source of profit to owners of professional schools. For this reason, advance of entrance requirements usually was accompanied by increase in annual tuition. This, in a measure, would compensate in aggregate tuition receipts for the smaller number of students.

The private owners of dental schools had another financial interest in the number of dental students, for they must buy large amounts of supplies and instruments. Many proprietors and officials of dental schools had an interest in dental supply houses either as owners or as stockholders, and made a personal profit on whatever the student bought. The more students, the more profit. By these two types of selfish interest the advance in entrance requirements was retarded far more in dental schools than in medical schools so long as proprietary schools constituted the majority of the membership of the National Association of Dental Faculties.

The published entrance requirements of the School of Dentistry in its first twenty-five years, in each case in accord with the minimum requirements of the National Association of Dental Faculties, may be summarized briefly, as follows:

1892-1896 Good English education.

1896-1900 Approximately entrance to high school. Statement is very indefinite.

1900-1901 Completion of one year in high school.

1901-1902 Entrance to second year of high school.

- 1902-1908 Entrance to third year of high school.
- 1908-1910 Entrance to fourth year of high school.
- 1910-1915 Graduation from high school.
- 1915-1917 Graduation from first grade high school.

In none of these statements was there any specification of subjects to be studied and equivalence of the stated requirement was permitted to be established by examination given, up to 1901, by a committee of the faculty, from 1901 to 1910 by an examiner appointed by the State School Commissioner, and from 1910 to 1914 by an examiner employed by the school. Beginning in 1915 such examinations were given by a deputy of the State Superintendent of Public Instruction.

For thirty years published requirements for entrance to most dental schools were delightfully indefinite and ambiguous, partly because there was no agreement among dental educators as to what subjects best prepared for dental study, and partly because indefiniteness was premeditated, for it allowed wide liberality of interpretation. But the statement of entrance requirements was less erroneous than was their administration. In administration of requirements for entrance to all types of professional schools there long persisted laxity, evasion, subterfuge, and fraud, and through such procedures the advance was only nominal.

Published entrance requirements are one thing; carrying them out is quite another. Into administration of this phase of dental education many factors entered. Skill in detecting fraudulent credentials was involved for, in all types of professional education, forged and altered credentials were frequently presented. Some that were authentic were fraudulently issued, having been sold by educational officials to aspirants who had not earned them. Allowance of conditions and the method of their subsequent removal were subject to great variation.

In contrast to general and indefinite statements there arose in some quarters about 1890 a detailed specification of the subjects which must have been completed in preliminary education. In other quarters it was held that "many roads lead to Rome," and that various subjects were of equal value in training the

prospective professional student. This influence brought the addition of the phrase "or equivalents" in the statements of entrance requirements. Determination of equivalents required much knowledge of many subjects and often led to great liberality of interpretation. For example, some held that for preparation for study of dentistry a deficiency of a year of high school physics might be compensated for a period of work in a machine shop or in some craft.

The National Association of Dental Faculties early added to its specifications of preliminary education "or equivalents to be determined by examinations by a committee of the faculty." This gave proprietary schools an unbridled liberty to prostitute education with the blessing of the only standardizing body in dental education. Thereafter, examinations to establish "equivalents" given by authority of the faculties of proprietary professional schools of all types became a scandal to American educators.

The officials of the College of Dentistry of Western Reserve University, throughout the medical school era, were endeavoring to build up a good dental school, and they believed that high school education should be required of students entering the school in spite of the fact that the school was not strong enough to adopt standards higher than those of its competitors. Twice before 1900 this school joined with a few others in an attempt to get this standard adopted by the association, but were defeated by those interests that were more concerned with personal profit than with the improvement of the dental profession. The officials did succeed, however, in keeping above the minimum for nearly all students. A large majority of the students accepted in this period by this dental school were high school graduates, and only applicants of maturity and apparent personal aptitude were admitted with less than high school graduation.

The records show that in the fourteen years of the medical school era very few were admitted on equivalents determined by examination. In common with other dental schools connected with universities where entrance examinations were required, these examinations were not given by a committee of

the dental faculty, but by the faculty of the undergraduate college. Here this undergraduate faculty committee was designated by the president with, for several years, an instructor in physics as chairman.

Thorough examination of the records shows that from 1892 to 1906 the administration of entrance requirements was on a high plane, that the published requirements were enforced both in letter and in spirit, and that the average preparation of entering students was above that of the majority of dental schools of the period.

With the beginning of the affiliated era the ideals were changed from an altruistic to a commercial motive. The owner of the school wanted a large enrollment not only for the tuition that would be paid, but also because he was the president and principal owner of a dental supply company from which each student had, during his course, to buy many supplies.

To pass on credentials and to examine those who could not present credentials, an examiner was employed. He was superintendent of schools in the home town of the principal owner, sixty miles from Cleveland. Nominally this examiner was approved by the Ohio State School Commissioner, but under the law this commissioner had no authority either to appoint or control this employee. This examiner died in 1910 and then another citizen of that town, who had previously been a teacher in a high school, was employed.

The leniency of privately employed examiners brought, in one state after another, legislation to make this work for several types of professional schools one of the functions of the State Superintendent of Instruction. He conducted the examinations through deputies, and the fee was paid not by the schools, but by the state. This plan effectually checked the conditions that existed under the private system. Some of these bad conditions under privately employed examiners deserve mention. Sometimes an examiner was paid one dollar for each student examined, and if he considered the student fit to enter the school by which he was employed, he was paid nine additional dollars for issuing a certificate. In their competition for students some

schools would write the prospective candidate that their examiner was "reasonable" in his examinations, and more reasonable than the examiners of competing schools.

The farce of these examinations may be illustrated by three sample examinations published in the newspapers in the summer of 1916 by the secretary of the Ohio State Dental Board. They were there stated to have been given to students who were admitted about 1913 to the School of Dentistry of Western Reserve University. These complete examinations were as follows:

- No. 1 What is your name?
 What did you do before you came to college?
 How much high school education have you had?
 How did you come to study dentistry?
 Are any of your relatives dentists?
 Are you married?
- No. 2 Why do substances fall toward the earth?
 Why does a silver spoon become hot when placed
 in a cup of hot water?
- No. 3 How old are you?
 Are you married?
 How many children have you?
 What did you do before entering college?
 Do you like dentistry?

Similar conditions existed in many proprietary schools.

By the revision of the laws, enacted in 1914, governing the practice of dentistry in Ohio, it became the duty of the State Superintendent to pass upon the credentials of all students who sought to enter an Ohio dental school and where examinations were required for entrance he, through deputies, gave such examinations. He was, also, to issue a dental student's certificate when the student fully met the preliminary educational requirements of the Ohio State Dental Board. This certificate was required of every student for entrance to a dental school and its presentation was a condition of admission to examinations for license. This procedure effectually stopped lenient and farcical examinations and also ended the granting of entrance conditions.

At the beginning of the university era the requirement of the Ohio dental students' certificate for entrance much simplified the problem and stopped those pleas by members of the profession, alumni, or friends of the applicant for "special consideration"—importunities which formerly constituted a large part of the burden of every committee on admissions.

In the first catalogue published in the university era, in July 1917, the statement concerning entrance requirements was enlarged to require a minimum of fifteen units of high school work. In July 1920 was first included in the catalogue a section on advice concerning preparation. This was the first time in the history of the school that any specification, even advisory, as to preparatory studies was given, and at the same time notice was given that the entrance requirements would soon advance to one year of work in a college of arts or science.

In May 1921 it was announced that beginning with the class entering in September 1922, thirty semester hours of college work would be required, and would include six semester hours each in chemistry, biology, and English, and physics to the amount of one unit either in high school or college.

No conditions were allowed under the high school entrance requirement after the administration by the State Superintendent of Public Instruction began, but in 1922, when the year of pre-dental college work became operative, since it was more than required to secure the dental student's certificate, the school officials were called upon to administer the matters related to college work. While no conditions were allowed on the thirty semester hours required, in a few cases conditions were allowed for a year on a part of the required work in not more than one of the specified subjects, although no such announcement was made in the catalogue. In this procedure the rulings of the Dental Educational Council of America were followed.

With the beginning of two years of pre-dental college work in 1927 there was no immediate change in the specification of subjects, but no conditions were allowed. In 1929 a course in organic chemistry with laboratory work was added to the specifications. In 1933 the administration began enforcement

of twelve semester hours in chemistry, including organic chemistry, and six semester hours of college physics instead of the permissible high school physics effective since 1921. No further changes in entrance requirements have been made up to 1940.

The subject specifications which were first announced in 1921 and extended in 1929 and again in 1933 have been administered strictly, and while up to 1926, conditions in not more than part of one subject were permitted, there has been no allowance of entrance conditions since that time.

During the university era there has been no laxity or evasion in administration of entrance requirements, but the minimum requirement has been much exceeded by many entering students. Gradually the number of men holding a bachelor's degree on entrance has increased. In the thirteen classes that have entered since 1927, when two years of predental collegiate work began to be required, nearly twenty-five per cent. of the members have held a degree on entrance. For the last four classes entering the percentage is over thirty. The combined courses have resulted in many of these students receiving a bachelor's degree while in the School of Dentistry, so the proportion who hold a baccalaureate degree at graduation is greater. Of the ten graduating classes that have entered under the requirement of two years of collegiate work, fifty-six per cent held a baccalaureate degree at graduation from the School of Dentistry.

The entire history of entrance requirements in the School of Dentistry shows a gradual betterment in the general education as well as the professional education of those whom the School of Dentistry of Western Reserve University has contributed to the dental profession.

CHAPTER XI

THE LENGTH OF THE DENTAL COURSE AND ITS DEVELOPMENT IN THE SCHOOL OF DENTISTRY

In professional education the total period of instruction in consecutive months has been variously designated as a term, a course, and a year. Each of these words has other educational applications and the use of any of them in a historical discussion is likely to be misunderstood. The designation that is least likely to lead to confusion is session.

The length of a complete period of instruction leading to a dental degree includes three factors; namely, the numbers of sessions, the length of each session in weeks, and the number of hours of instruction each week during the session. Multiplying these three factors will give a total number of hours of instruction which the student receives from entrance into the school until graduation.

The Number of Sessions

In medical education for over a hundred years the length of study was set as three years including two sessions of lectures, and each session of lectures was held from about November 1st to about March 1st. To complete the two sessions required at least sixteen months in elapsed time. In proprietary medical schools, beginning about 1825, various devices were contrived to shorten this elapsed time and to permit the student to attend the two required sessions within as little as eight months.

When the Baltimore College of Dental Surgery was founded in 1840 it failed to follow the length of study traditional in medical education, and required attendance at only one session—without prior service under a preceptor and with no clinical work during the session—before granting the D.D.S. degree. Thus the course was merely a series of lectures, quizzes, and examinations.

However, the Baltimore College of Dental Surgery soon adopted a requirement of attendance at two sessions including clinical work, before granting the degree, but it accepted at-

tendance in a medical school in lieu of one of these sessions. Most dental schools were on a two session plan until about 1890.

The acme of evasion in the attempt to shorten the elapsed time in professional education came when the Boston Dental School was founded in 1868 as a competitor of the recently organized Harvard Dental School. The Boston Dental School, in its first year of operation, gave a set of lectures in the morning and early afternoon of each day of its four months session, and in the late afternoon and evening repeated the same lectures. The students who attended both daily sets of lectures were said at the end of four months to have attended the "full two courses of lectures" which were specified in its charter and were to be granted dental degrees when the Massachusetts Supreme Court permanently enjoined this interpretation of "two full courses."

The Association of Colleges of Dentistry in 1866 adopted a resolution that "two years of pupilage with a reputable dental practitioner inclusive of two full courses of lectures in a dental college be required to entitle the candidate to an examination for graduation as D.D.S." So it was that more than twenty-five years after the founding of the first dental school, the standard set by five of the seven dental colleges comprising that association was for one year less of study in dentistry than the traditional three years in medicine.

In July 1866 the American Dental Association appointed a committee of three to draft resolutions on dental education and to send them to every dental practitioner in the United States. The chairman of the committee was Dr. Jonathan Taft of Ohio.

The resolutions, dated January 10, 1867, stated that the student "must be required to apply himself diligently for three years including two full courses of lectures in some dental college in the following subjects" of which eleven were named..

This was an attempt to bring dental education to the same level as medical education and to meet the criticism of dentistry by physicians that the dental educational program was deficient. However, these resolutions had little effect, and dental schools all continued on a two-session basis until 1889, when the school

at the University of Michigan of which Jonathan Taft was dean began to require attendance at three sessions for graduation.

In the same year the National Association of Dental Faculties adopted a resolution governing its members which, beginning in 1890-91, required three sessions. This was probably due to the fact that shortly before this time the standard in medical education was advanced to attendance at three sessions.

Three sessions was the standard in dental education for the next twenty-seven years until the four-session course began in 1917-18. In medical education an advance to four sessions was made before 1900, and the National Association of Dental Faculties, in an attempt to follow medical education, adopted a standard of four sessions to become effective with the class entering in 1904. This was actually put into operation, but because of the small attendance the standard was abandoned by official action a few months later and the former requirement of three sessions was reinstituted.

Length of Sessions

When the first dental school was founded in 1840 the standard length of session in medical schools was sixteen weeks. This had been lengthened from twelve weeks, the usual session in 1810. The dental school, following medical procedure, began with a sixteen weeks session.

About 1850, for reasons which this author has sought in vain, the designation of length of sessions in both medical and dental schools came to be stated in months instead of weeks, and soon schools were announcing a session of five months instead of sixteen weeks. This, on first sight, appears to be a considerable increase and many authors have stated that the session was increased twenty-five per cent at the time since the five months, beginning with October or November contain over twenty-one weeks. But this appearance is deceptive. The adoption of the measurement in months led to a subterfuge. Any month in which any instruction of the session occurred was counted as a full one. A session might begin on October 31st and end on

February 1st and be called a five month session, although the actual time was a little over thirteen weeks.

After the Civil War the majority of the medical schools instituted what was called a six months session. This would appear to be twenty-six weeks, but the session began late in October and closed in the first days of March, so, although it was usually about twenty weeks, it might be as little as seventeen weeks.

In dental schools, until about 1870, the length of session was four months, which might be as little as fourteen, but was usually sixteen weeks. Shortly after 1870 the dental school session was advanced to five months, that is, from seventeen to twenty-one weeks, and shortly before 1890 was generally advanced to six months, that is, from twenty-one to twenty-six weeks. This peculiar method of calculating a group of months also causes confusion in comparisons of various schools and leads to error unless one has the actual date of both the opening and the closing of the sessions in each school. The subterfuge of opening late in one month and closing early in another month was so common as to cause no comment by contemporary writers.

Number of Hours of Instruction Each Week

It is impossible to get accurate and complete data on the number of hours of instruction a week in early dental schools. The catalogues name the subjects in which instruction was given, but do not tell how much was given. The school issued to its students what were called time cards on which were printed the weekly schedule, but only rarely are these reproduced in catalogues, and the actual cards are seldom found by writers of history.

There were usually four or five lectures or quizzes a day, with fewer on Saturday, and it seems probable that didactic work would average about twenty-five hours a week. Laboratory and clinical work was done at hours not occupied by lectures, but was usually not scheduled. Therefore the total number of hours of instruction for the degree in dental education prior to 1890 cannot be determined. In fact, these hours are not commonly found in detail in catalogues before 1917.

*Length of Session in the School of Dentistry of
Western Reserve University*

When the School of Dentistry of Western Reserve University was founded in 1892 the standard of the National Association of Dental Faculties was three sessions of five months each. This new school stated that it followed these standards, but it also imitated in many ways the College of Dentistry of the University of Michigan which, as early as 1884, had adopted a curriculum of two sessions of nine months each and by 1889 had progressed to three sessions of nine months each. The nine-months session could not be put in operation in Western Reserve in 1892 because dental students were to be taught in classes with medical students and the session in the School of Medicine was but six months long.

The first session of the Dental Department of Western Reserve University began September 14, 1892 and, with a holiday recess of nine days, extended to February 22nd when examinations began. Commencement was held on March 1st. The catalogue stated the session to be six months long, following the usual custom of counting the fraction of September as a month. Actually it was one hundred and sixty-seven days of elapsed time, and deducting the vacation and examination periods, each nine days, left one hundred and fifty days of instruction or a little less than twenty-two weeks.

Rather suddenly and with little preliminary discussion, in the summer of 1894 the medical faculty adopted an eight-months session for its incoming freshman class. The dental faculty, having already sent out announcements and matriculated students for the session of 1894-95 on a six months basis, did not follow in the sudden change, but in 1895-96 an eight months session was adopted for all classes, again of elapsed time. This session was one of thirty-two weeks while the dental educational minimum standard at that time was still five months with rather less than twenty weeks of instruction. So the school was well ahead of the general standard.

In 1896-97 the School of Dentistry changed its statement of length of course to the measure of weeks and announced its

session as "thirty-five weeks including Christmas vacation." In this it followed the undergraduate colleges rather than the School of Medicine which continued until 1904 to measure its session by months. In 1901 the School of Dentistry went back to the measure of months and stated its sessions as "seven months for first and second years and eight and a half months for third year." In 1904 the measure returned to weeks, but instead of this being elapsed weeks it was weeks of instruction exclusive of holidays and vacations and the statement became "thirty weeks exclusive of holidays."

In 1911 the measure was increased to thirty-two weeks exclusive of holidays," and in 1919 to "thirty-three weeks exclusive of holidays." All of these measures included the examination periods and the actual number of weeks of instruction was somewhat less. In 1923 the statement was changed to "thirty-five weeks exclusive of vacations but including three weeks of examination." The table given in Appendix VII indicates these various changes.

The influences that brought these various changes in the length of course, in sessions, months, weeks, and hours have come in part from outside the university through other dental schools and the dental educational associations, and in part from within the university, especially from the School of Medicine. It will be noted that the total number of weeks of attendance of the student upon instruction and examinations before he attains the dental degree has increased from 66 in 1892-93 to the present 140 weeks, a little more than double.

Comparing the minimum entrance requirement of a "good English education" effective in 1892-93, which meant completion of the grammar school, with the number of elapsed years required beyond the grammar grades to acquire the dental degree, the advance in professional training becomes apparent. For the student entering in 1892 it was three years, all in the professional school. For the student entering in 1927 it was four years of high school, two years of college, and four years in professional school. Assuming that the high school session was thirty-six weeks of instruction and the college thirty-five weeks,

it is plain that while the entrant of 1892 could obtain his dental degree with sixty-six weeks of instruction beyond the grammar school, the entrant of 1940 spends three hundred and fifty-four weeks, an increase of 436 per cent, or that the graduate of 1940 has five and a half times the amount of formal instruction beyond the grammar school received by the graduate of 1895 who entered on the minimum standard.

Total Hours of Instruction

For a hundred years in medical schools the only information in catalogues was a list of the subjects taught. When, between 1880 and 1890, the graded curriculum replaced the repetitive curriculum, it became customary to list the subjects taught in each year. Teachers and students differentiated the subjects as, for example, first year anatomy, second year anatomy, and so forth. This meant a change of objective from subjects to courses, but the length of courses was not indicated in weeks, because many courses continued for only part of the session.

The same plan was followed in dental schools, as the first catalogue of the School of Dentistry shows. Beginning in 1894 a list of subjects taught in each year is given and the number of hours a week indicated. If each course had extended through the session the total number of hours could be computed, but such was not the case.

In the affiliated era the information was replaced by the earlier plan, and so continued until 1915. In that year the writer of this history rejoined the dental faculty. From experience in editing the medical school catalogue for the previous several years, he knew the value of definite statements and in the dental school catalogue published in July 1915 first appeared the total number of hours in each subject in each year. The total for the three year curriculum was 4,268 hours, an average of over 1,400 hours a year.

When the reorganization occurred in 1917 the faculty decided that the four-year curriculum should not exceed 1,150 hours a year, but with the inclusion of biology, physics, English, and drawing, the teachers of dental subjects found their courses



THE CLINIC IN 1940

so much shortened that the limit was advanced to 1,250 hours, and for two years the curriculum contained over 5,000 hours. In 1925 this was diminished to about 4,800 hours and, when the first class with two years of entrance requirements entered, to about 4,600 hours.

In 1935 the tabulated time schedule for the clinic was reduced one-sixth to allow for the time lost in changing patients, when students were not under instruction. This brought the tabulated total time down from 4,500 hours to 4,400, where it stands in 1940.

In professional schools the amount of instruction had for many years been listed as total clock hours. This was not readily comparable with semester hours, the units used in undergraduate colleges. In the catalogue issued in March 1938, courses for the first time, are listed in total clock hours and in semester hours. The total number of semester hours is about 136, or an average of 34 a year, compared with 30 semester hours usual in undergraduate colleges.

* * *

Years, sessions, months, weeks, and hours are but measures of progress of time, and are meaningless in education unless something is known of the way in which that time is employed by the student and with what efficiency. This brings consideration of the curriculum and of the subjects taught and studied, the order of their arrangement, and some of the purpose and hope of educators in directing the endeavors of the student. The next chapter is concerned with the curriculum with more regard to its content than to its length.

CHAPTER XII

THE DENTAL CURRICULUM AND ITS DEVELOPMENT IN THE SCHOOL OF DENTISTRY

In its etymology the word "curriculum" comes from the Latin verb meaning "to run," the substantive meaning a race course. The present use of the word as meaning a course of study has not yet been wholly separated from the original meaning. In professional schools the curriculum is still a race course for the student, and likewise a place for contest between advocates of various subjects as to relative importance. Rarely is a teacher an advocate of any subject except the one he teaches. Rarely, also, does his attention extend to the horizon of the entire curriculum.

When the Baltimore College of Dental Surgery was founded in 1840 its curriculum consisted of anatomy, physiology, pathology, therapeutics, and clinical dentistry. All except anatomy were taught by lectures and demonstrations and the entire course was given in one session of sixteen weeks.

When the committee appointed in July 1866 by the American Dental Association made its report on dental education under date of January 10, 1867, it recommended that the dental student should spend three calendar years in professional study, in which he should attend at least two sessions of lectures upon the following subjects:

First year —Anatomy, histology, and physiology.

Second year—Pathology, chemistry, metallurgy, and mechanical dentistry.

Third year —Operative dentistry, special pathology, dental medicine, and microscopy. Microscopy here means histology, a subject that was just beginning to be taught didactically in medical schools.

At its organization in 1884 the National Association of Dental faculties recommended, but did not require, the following two session graded curriculum:

First year—Anatomy with dissections, chemistry—didactic and practical, histology, mechanical dentistry, physiology.

Second year—Review of junior year studies, materia medica and therapeutics, operative dentistry, pathology and surgery.

One of the jibes of physicians against dentists was that they were merely mechanics. Hence the inclusion in the curriculum of a subject designated mechanical dentistry became an irritation, and some substitute term was sought. At that time, when amputations were common, the word that had been used in medicine for the art of making artificial limbs and glass eyes was suggested. This word was prosthesis, derived from two Greek words and meaning to place an addition. In this substitution the adjective prosthetic was more used than the noun, and began to be used before 1884. In the foregoing statement of studies for that year, this was not used, but it was accepted in the 1891 list.

In 1891 the National Association of Dental Faculties recommended the following graded curriculum to be covered in three five-month sessions:

First year—Anatomy, chemistry, physiology, prosthetic technique, practical prosthetic dentistry.

Second year—Anatomy, chemistry, physiology, and prosthetic dentistry continued; general pathology, histology, materia medica and therapeutics, operative dentistry.

Third year—Dental materia medica and therapeutics, dental pathology, operative dentistry, oral surgery, prosthetic dentistry.

In the Dental Department of the Western Reserve University in its first year the curriculum was as follows:

First year—Descriptive anatomy, dental anatomy, physiology, chemistry, osteology, microscopy, histology, chemical analysis, physiology, prosthesis, metallurgy, dental mechanics, dissection.

Second year—Anatomy, physiology, prosthesis, metallurgy, operative dentistry, clinical dentistry, dental pathology, orthodontia.

Third year—Theory and practice of dental surgery, anesthetics, dental pathology, orthodontia, surgery, clinical and operative dentistry, dental hygiene, materia medica and dental therapeutics, and as optionals, principles and practice of medicine, general pathology and morbid anatomy, and diseases of women and children.

Comparison of this curriculum shows eleven subjects not contained in the standard of the National Association of Dental Faculties. Comparing the curricula at the two leading dental schools of the University of Michigan and Harvard, a comparative broadening of the curriculum at Western Reserve in 1891-92 may be observed in several subjects.

Comparison with the standard of the National Association of Dental Faculties and with the curricula at two of the best university dental schools in the year previous to the founding of the Dental Department of Western Reserve University, warrant the statement that its first curriculum was much broader than the standard of the day and almost unique in including a relation to clinical medicine and clinical surgery. However, these optional medical subjects were designated only for those few senior students who planned to take, after graduation in dentistry, one year in the medical school in order to attain the degree of M. D., a procedure at that time permissible in all dental schools that were departments of a university.

The development of the curriculum and changes in the curriculum involve several factors. First, there is the introduction of new subjects which is found throughout the history of the school.

Second, there is discontinuation of some subjects. This discontinuation is both real and apparent. Throughout is the apparent introduction of subjects which comes through change of terminology or fusion or division of subjects. Since these differences of terminology do not affect the actual content of the curriculum, their mention would be confusing rather than helpful in comprehending the general progress of the teaching.

Third, there are changes in the method of presenting sub-

jects. These are mainly concerned with adding or occasionally with dropping laboratory work.

Fourth, is the shifting of a subject from one to another year of the curriculum. Correlation of subjects and attainment of logical sequence are the usual purposes of such changes. The requirement that passing of preliminary subjects be prerequisite to entrance to certain courses constitutes a distinct development of educational efficiency which was not much considered until the university era of the school's history. Before that time conditions incurred in the first year were sometimes not removed until a week before graduation.

Under these four headings we shall now proceed to consider the happenings and some of the causes of events which affected the curriculum of the School of Dentistry of Western Reserve University.

Introduction of New Subjects

The first new subject was introduced in the session of 1895-96, when a senior course in bacteriology with laboratory work was begun. This subject was given to dental students at the University of Michigan in 1891-92, but there it was only a lecture course, and the School of Dentistry of Western Reserve University is believed to have been the first dental school in the United States to give laboratory teaching in bacteriology. Three other subjects were introduced into the curriculum this year, namely, dental embryology, crown and bridge, and jurisprudence. In 1897-98 applied electricity and electro-therapeutics appeared as a new course.

In 1902-03 comparative odontology and physics appeared. This was the first of three times that physics was introduced in connection with the expected four-session curriculum that was to start in 1903-04, but when, within a few months, the three-session curriculum was again adopted, physics was dropped. It appeared again in 1907-08 and was continued eight years, again dropped for two years, to reappear in 1917-18 when the four-session course actually went into operation. It was again discontinued in 1922 when entrance requirements of one year of

college work became effective. Not until this last time did the course include laboratory work.

In 1904-05 dental history first appeared in the curriculum. This subject has had a variable career, appearing and disappearing from time to time, but before 1930 it consisted only of a few lectures, usually in connection with some other subject, but not mentioned in the title of the course. The same was true of ethics. In 1930 a consecutive series of lectures in dental history was given with tests and examinations and a required dissertation, so that dental history became a study rather than mere entertainment.

Dental ceramics was listed first in 1906-07. In this year was first given a course in radiology and, with various changes in terminology, it has been permanent. In the same year reappeared a course in general pathology, as distinguished from dental pathology, a subject which had been absent from the curriculum since the end of the second year (1893-94) when it was optional and was dropped from the dental curriculum. In 1910-11 dental economics first appeared, and in 1916-17 rhinology, again an attempt to connect dental instruction with certain phases of clinical medicine.

With the beginning of the university era in 1917-18, which was also the first year of the four-session curriculum, a rearrangement of the curriculum was begun to increase its efficiency. In 1917 four new subjects were introduced in the first year. These were of a collegiate, rather than of a professional nature and essentially constituted a half session of collegiate preparation to a three and a half session professional curriculum. These four subjects were biology, drawing, English, and physics. They were considerably developed in the five years in which they were given.

In 1918-19 with the coming to the faculty of Dr. Henry H. Hosford, chemistry, formerly a single course given in the first year, was extended and the work of the first year was confined to inorganic chemistry, while in the second year were instituted two new courses, one in organic chemistry, the other in biochemistry.

In 1919-20 an effort was made to bring about some correlation with the clinical subjects of the medical course, and a course in principles of surgery was introduced for juniors. In this year also was begun a laboratory course in general pathology. The following year this effort of correlation with clinical medicine was extended and courses in physical diagnosis and general diagnosis were required of seniors. The course in general diagnosis was really a course in elementary principles of medicine.

With the first class entering with one year of predental work, that is, in 1922-23, there were returned to the curriculum courses in embryology and comparative dental anatomy, subjects which had been given in the early years of the school, but had been absent from the curriculum for nearly twenty years.

When this class became sophomores in 1923-24 a new course in oral pathology with laboratory work was given. This in part replaced the rather heterogeneous course called dental pathology given since the school was begun, which, in common with the practice in other dental schools, consisted of etiology, diagnosis, pathology, and treatment of diseases of the oral region. Usually there was far less of pathology in this course than there was of treatment of teeth through mechanical measures. Its subject matter usually constituted a repetition and extension of parts of the instruction in operative dentistry.

A course in general hygiene, a novelty in dental education, was introduced in 1924-25. Instruction in this subject was intended to prepare the dental graduate, as an educated professional man, to fulfill his public duties by participating in community health programs, to cooperate intelligently with sanitary engineers and physicians in bringing to public attention the benefit of proper control of water and food supplies, sewage disposal, control of contagious disease through quarantine, vaccination, and other methods of preventive medicine.

Another procedure, nearly unique in dental education, was introduced in 1925-26. A course in general technics was offered in the first year. Five years later it was much expanded and its terminology changed. This course laid down general technical principles common to many phases of dentistry and gave the

student preliminary training in digital skill. This course is now prerequisite to the more special courses in the technique of prosthetics, operative dentistry, crown and bridge, and orthodontia.

During the twenty-three years of the university era there have been various changes in terminology, all the courses have been reorganized, many of them broadened, and the entire curriculum has been markedly extended and rearranged.

Discontinuation of Subjects

Subjects disappear from the curriculum for two major reasons. The first is that a change in administration and policies is likely to be reflected in the curriculum. The second is that withdrawal of teachers especially interested in a certain subject leaves no one with equal interest to continue teaching it. Another apparent reason is the combination of the subject matter of a course with that of another course without this combination being indicated by a change of the name of the course with which it is combined, so that the subject seems to disappear, but its content remains.

The first considerable disappearance of subjects from the dental curriculum was when the inclusion of the entire medical faculty in the dental teaching staff was terminated, at the beginning of the session of 1895-96. Four new subjects appeared in the curriculum at this time, replacing the optional clinical medical subjects of general surgery, principles and practice of medicine, diseases of women and children, and general pathology and morbid anatomy which were discontinued in that year. Also, with the retirement of Dr. Christian Sihler at this time, the subject of microscopy was dropped. Toxicology had a similar fate through the replacement of Dr. Spenzer by Dr. Hobbs as professor of chemistry in 1896.

When Dr. Whitslar withdrew from the faculty in 1904, embryology and comparative odontology were discontinued and did not reappear until 1922-23.

After 1904, when Dr. Weston A. Price left the faculty, applied electricity and electro-therapeutics, which he had taught for seven years, was no longer to be found in the curriculum.

Ceramics was a subject in which Dr. Samuel W. Allen was especially interested, but when he died in 1918 it was combined in minor measure with other courses, as it had been before he became a member of the teaching staff.

Rhinology was taught by Dr. Carl L. McDonald, a graduate in medicine beginning in 1916, but when he retired from the teaching staff in 1920, the subject was dropped from the curriculum.

In the university era a major group of discontinuations occurred when in 1922-23 an entrance requirement of a year of predental college work became effective. At this time the six courses in academic subjects,—inorganic chemistry, biology, comparative vertebrate anatomy, physics, drawing and English—were dropped. This was not a backward step because the content of these courses became then specifically required in the predental college work.

Retrogression of Courses

It may be said in general that when a course was once introduced into the curriculum it became better each year that it remained a specified subject of study, except when an abrupt change of policies in the school occurred as in 1903 and 1906. This improvement was due to the continually improving experience and interest of the teacher. Temporary retrogression might come with replacement of teachers, all too frequent in this, as in all dental schools. Frequently the time devoted to a course has been changed slightly, but permanent retrogression has occurred only when a teacher has withdrawn from the teaching staff and the course has been dropped or the subject matter combined with that of some other course, often under an instructor with little especial interest in the adopted waif.

There were, however, two periods in the history of the school when courses which continued to be carried in the curriculum suffered marked restriction in both content and pedagogical methods. When, beginning in 1900 and continuing to 1904, the teaching of the medical sciences was removed from the well-equipped laboratories of the School of Medicine and installed

in small ill-equipped laboratories in the quarters of the College of Dentistry, there was serious deterioration in the laboratory instruction. In 1900 bacteriology was changed from the effective laboratory course to a demonstration course. In physiology all laboratory work was abandoned in 1903. For some years it was only a lecture course. Then demonstrations were added and increased from time to time until in 1915 the teaching of the subject was returned to the department in the School of Medicine, and laboratory work in physiology by the students was resumed.

Anatomy, histology, and chemistry did not suffer quite so badly. A pretense of laboratory work was kept up, but the facilities were not sufficient to give adequate courses. When the teaching of anatomy in 1914-15 and of histology in 1915-16 was returned to the medical school laboratories there were again available facilities for giving good courses. Chemistry did not secure anything like adequate teaching facilities until the new building was occupied in 1917.

During the affiliated era from 1906 to 1917 it was not only lack of facilities that limited effective teaching, but also the policies of the school. The administrative officers had little interest through these years in providing for the medical sciences, but restricted their efforts to the strictly dental subjects, an attitude common to all proprietary schools.

Sequence of Subjects

At several times there have been changes in the sequence of the various subjects of the curriculum. In early days the sequence was somewhat haphazard. It was influenced by convenience and very largely by a belief that the strictly dental subjects of technique and clinical practice were the main object of the instruction and the only ones really worth while. In conformity with this belief the aim was to get the student into the clinic at the earliest possible date. This attitude was especially influential during the affiliated era. Therefore courses in the medical sciences, and in dental specialties were inserted in the curriculum when they would not disturb this principle of getting the student speedily into the clinic.

The fact that instruction in certain subjects was preparatory to other subjects had little influence. Subjects that should have been considered preliminary were frequently given concurrently with those for which they should have been preparatory. Sometimes they were given afterward, as when bacteriology was given in the senior year while dental pathology and dental hygiene came a year earlier.

In the university era a determined effort was made to put courses in logical order. Slowly this has been fairly well accomplished, but not entirely, because the courses given in the School of Medicine are there considered secondary in importance to the courses for medical students and dental students are compelled to use the laboratories only when unoccupied by medical students. This, for a long time, resulted in illogical sequence of courses in the dental curriculum, but recently has been largely corrected by cooperation of the schedule committees of the two schools.

Throughout the history of the school there has been shifting of courses from one year to another. There have been two underlying causes of this. In the first place, a subject formerly taught in one year has been divided or extended and taught in two years. The reverse process has, at times, brought the result that a course taught in two years has been concentrated and occasionally shortened to be taught in one year. Sometimes this has been only an apparent change arising from a new terminology, so that work in the same general subject has been given two special names, one applied to the work in one year, the other to more advanced or special work in the succeeding year, for example, anesthesia and exodontia.

At two points in the history of the school a considerable number of subjects and courses have been changed from one year of the curriculum to the next earlier year. This occurred when the four-session curriculum became effective in 1917 and again in 1922 when the one-year of predental college work was first required.

It seems inadvisable to present in detail, either by narrative or by tabulation, all the changes in the curriculum in the

history of the school. These details, if given, would but confirm the more outstanding conditions and influences that have been noted in the foregoing pages. Minor changes are of less importance.

Further broadening of the curriculum came as the class entering in 1927, with two years of predental college work, progressed through the four sessions of the curriculum. A curriculum in a living school is always in a state of flux. The continual changes are for betterment if the school is progressive, except in rare cases of poor judgment. An ideal curriculum is probably unattainable, but maximum worth and efficiency can be reached only when equipment and facilities are adequate and the number of well-trained teachers is sufficient.

By way of summary, it may be stated that the curriculum in the School of Dentistry of Western Reserve University, in both content and efficiency, has been closely responsive to the general conditions in the school regarding entrance requirements, length of course, and facilities. It has responded to adversity, perversity, and the later comparatively prosperous conditions in the school, and finally has been closely indicative of the administrative policies characteristic of the several periods and eras. Since 1917 a major effort has been made to give to the students more training in the medical sciences, with the result that the percentage of curriculum time given to these subjects has been greater in the university era than in the majority of dental schools. In general, the curriculum of the school has been in advance of the national standards and, during the university era, much more study has been put upon the problems involved in carrying out an adequate curriculum than in many other schools, and innovations adopted here have come, after a few years, into general use in American dental education.

CHAPTER XIII

THE TEACHING STAFF AND ITS CHANGES

Teachers are the greatest power of any educational institution. Buildings, equipment, curriculum, and administration are only accessories to the teachers and the teaching.

A history of the School of Dentistry must, therefore, include consideration of its teaching staff. To have mentioned in the general survey given in Chapters V to IX every change in teaching staff would have been a deviation from the general purpose of those chapters. On the other hand, to have omitted mention of any members of the teaching staff would have deprived those chapters of some factors essential to understanding of the causes of events. In other chapters also, occasional mention of individuals has been advisable, but this chapter has been reserved for a view of the teaching staff as such, in number and groups rather than as individuals.

In its forty-eight years this school has had three hundred and sixteen individuals on the teaching staff. This number does not include members of the medical faculty who, in the first four years, admitted dental students to their classes, nor all of those who, since 1930, are listed as associates. These associates are so-called because they do some teaching of dental subjects, although their appointment is in the faculty of some other school of the university.

The size of the teaching staff has changed. In the first year it consisted of eight and in the second and third years of nine teachers. By 1902 the number had increased to twenty. Through the affiliated era the number ranged from 16 to 20, until 1915, when the medical faculty again began to participate in the teaching and the number of teachers increased to twenty-five.

With the beginning of the university era in 1917-18, in the endeavor to make the teaching more effective, the number was increased to thirty. Ten years later there were fifty-one teachers.

Beginning in 1931 those primarily members of faculties of

other schools of the university who taught dental students were listed as associates. In 1939-40 there are fifty-three men on the dental teaching staff and sixteen associates, a total of sixty-nine, two and a half times as many persons instructing dental students as there were twenty years ago.

The length of service on the teaching staff of the School of Dentistry shows a wide range. Of the three hundred and sixteen teachers, forty-five have taught for ten years or more, but only three for more than twenty-five years. These three are Dr. V. C. Rowland, thirty-one years, Dr. W. C. Stillson, thirty years, and Dr. F. C. Waite, twenty-seven years. In contrast with these are the one hundred and thirty-seven demonstrators who have taught an average of less than two years, and ninety-five persons who have been on the teaching staff in one session only. The average number of years of service of the three hundred and sixteen teachers is 4.86.

These figures show in this school one of the characteristics common to all American dental schools, that is, instability of the teaching staff. This instability is not found to anything like the same degree in any other type of education. Graduates in dentistry usually start to practice immediately after graduation. In dentistry, until recent years, there has been nothing comparable to the present custom in medicine where the majority of graduates serve at least one year as an intern in a hospital where they begin to have contact with patients before starting private practice. In dentistry, remote substitution is accomplished by service on teaching staffs of dental schools where, in the clinic, the demonstrator sees more patients than he did as a student.

The recent dental graduate finds that his practice does not occupy all his time, although within a year or two it may. If he is located in a city which has a dental school, he may assist in the school for the experience which serves, to some extent, as graduate instruction, and for a small compensation usually paid. This expedient is confessedly temporary, for as soon as his practice grows, after, let us say, one, two, or three years, the school connection is likely to be relinquished. Only rarely does he serve

as a demonstrator longer than three years, even when, as occasionally happens, he returns to teaching later in life.

In dental education, with its technical as well as clinical courses, it happens that these transient demonstrators have much more contact with students than do older members of the teaching staff, except where the older members are full-time teachers. The result is that most of the intimate instruction received by students in all American dental schools has been, until the last ten years, with recent graduates who were immature and have had neither training nor experience in teaching.

To attempt to mention in this chapter all these transient teachers who, by reason of the system in vogue, have had little effective influence upon the development of the school, would be of no avail. However, all are listed in Appendix V.

To bring about improvement in the stability of the teaching staff was one of the definite aims adopted at the beginning of the university era. In the past decade there have been fewer short services than before 1930, and the number of full-time teachers of dental subjects has been increased. In 1917-18 there were but two of these. In 1939-40 eight teachers are devoting all their time to the dental school—all of them of the grade of assistant professor or above. A large part of the instruction in the medical sciences is given by teachers with full-time appointments in the university. The total result is that the student now receives a far greater proportion of his instruction from full-time professional and experienced teachers than did the student of earlier years and the quality of teaching has distinctly improved.

Several major and abrupt changes have occurred whereby, in one or two years, a considerable proportion of the older and more mature teachers in the higher grades has been replaced.

The teaching staff has consisted throughout of two major sections, one concerned with those subjects peculiar to dentistry, the other with the medical science subjects.

There have been, also, two minor groups. One of these consisted of men who have taught subjects of a clinical nature, primarily medical, but also important in clinical dentistry. This lat-

ter group includes materia medica, therapeutics, physical diagnosis, elementary medicine, general anesthesia, general surgery, oral surgery, and general hygiene. The teachers of these subjects have sometimes been dentists, but more often physicians. A second minor group was in service during the years 1917 to 1921 inclusive. The members of this group were neither dentists nor physicians, but taught academic subjects including biology, physics, English, and drawing.

The dental section of the first teaching staff of eight members has already been sufficiently considered in Chapter V. In the first catalogue of the school the medical section includes under the heading "Medical Faculty" all of the twenty-two active members. None of these was a member of the dental faculty but, in their capacity as teachers in the medical school, some of them taught dental students who were admitted to their medical school classes. While ten of these taught subjects required in the dental curriculum and three taught subjects which were optional for senior dental students, nine taught subjects not mentioned in the dental curriculum and therefore taught no dental students.

Inclusion of the entire medical faculty in the dental teaching staff is originally justifiable from two facts, one that the Dental Department was announced to be a department of the School of Medicine, the other that the arrangement for taking the medical degree a year after graduation in dentistry necessitated that the dental student who planned to take the medical degree should, in his senior year, take optionally some subjects of the medical curriculum.

After two years the listing of the entire medical faculty under the teaching staff of the Dental Department stopped, and for one year the names of five men of the medical faculty were printed as a group "giving instruction to dental students." The next year began the policy that the dental faculty should elect to its membership such men of the medical faculty as it wished, and the ex-officio relations ceased. This change in policy was coincident with changes in policy in the Medical Department dis-

cussed in Chapter VI, whereby rapidly disappeared the illusion that the Dental Department was to remain actually a department of the Medical Department. This was the first abrupt change in the teaching staff of the College of Dentistry.

From 1895 to 1904 there were two or three changes in the teaching staff each year until in 1902-03 it consisted of twenty-one men, but had on it only six members who had been on the staff in 1895-96 when it consisted of fourteen.

With the change of policy in the relation of the College of Dentistry to the Medical Department at the end of the year 1902-03, several members of the medical faculty withdrew from the dental faculty and brought another abrupt change in the personnel. The teaching staff of 1903-04 consisted of seventeen men, but in that year were left only twelve of the twenty-one who had been in service the previous year.

With the affiliated era came the next abrupt change of staff. In 1906-07 there was a teaching staff of seventeen, only five of whom were of the sixteen who composed the staff of 1905-06. Two of these left at the end of the year, and in 1907-08 there were but two lecturers and one assistant who had been on the teaching staff in 1905-06 and not a single person who had taught in the school five years before.

There were changes each of the eleven years of the affiliated era so that in 1916-17 of a total staff of twenty-seven but five were left of those who were there ten years before when the staff numbered seventeen.

The beginning of the university era brought another major change in the teaching staff. In 1916-17 there had been twenty-five members, but only fifteen of these members remained on the staff of thirty in the following year. During the university era, however, there were many changes of teachers and in 1939-40 the teaching staff numbers fifty-three. Only three of these were on the staff in 1917-18.

These figures afford a concrete conception of the instability of the teaching staff of this dental school. It is illustrative of what has happened in every dental school of the country.

The administrative policy in this School of Dentistry has not suffered so many changes, although two of the deans served only a single year. Six deans in all served respectively one, fifteen, one, ten, and twenty years, and the present dean has served three years. There have been five secretaries of the faculty who served respectively twelve, two, eleven, and twenty-three years, and the present secretary has served three years.

A transition in titles in medical and dental schools was beginning when the Dental Department of Western Reserve University was founded. The first faculty consisted of three professors and five men who had no title, but appended to their names was a word or phrase to indicate the scope of their teaching. Following the custom in the School of Medicine, these five men were really lecturers and they are so listed in the Appendix. This custom of having potential, but undesignated, lecturers continued for nearly a decade.

Until 1921 the terms faculty and teaching staff were synonymous, since teachers of all grades—including demonstrators—were invited to faculty meetings and had a vote. Following adoption of new university by-laws in 1919, the voting dental faculty was restricted from 1921 on to professors, associate professors, and assistant professors. These, together with lecturers, instructors, and demonstrators, constitute the teaching staff.

About the same time the policy of term appointments superseded the indefinite appointments of former years. Thereafter only professors received appointments of indefinite tenure. For all other grades a term was established: five years for associate professors, three years for assistant professors, two years for instructors, and one year for lecturers and demonstrators. At the end of the term an appointee might either be promoted or reappointed, but no action was necessarily taken. In the latter case, tenure having expired, connection with the teaching staff ceased. This plan has solved many of the problems that vexed the earlier years of the school, not the least of which was sudden promotion to a professorship. Now, a man progresses normally through the various grades, and since the subordinate titles of associate professor and assistant professor admit him to the voting faculty

and give him all the public privileges of the professorship except indefinite tenure, there is much less early insistence than formerly upon the grade of professor for the immature man.

One cannot review the list included in Appendix V without wishing there were space to write of many of these persons, but the limitations of space prohibit biographical sketches of many who have contributed to the progress of the school.

CHAPTER XIV

STUDENTS AND GRADUATES

The end for which an educational institution exists is to train students for public service. It is through the agency of those trained in the institution that it repays the public for its support.

Graduates of a dental school contribute both quantity and quality of professional service. The number of years that a graduate will practice his profession is unpredictable. No statistics have been published to show the expectancy of length of practice of dentists. The expectancy is modified by many factors, including early death, ill health, and transferring to some other profession. Fifty years of practice seems to be the goal, if this may be judged by publicity given when a dentist has practiced fifty years. However, few reach this goal.

The number of graduates can be accurately stated, but the quality of a graduate at the time of graduation depends upon so many intangible factors that it cannot be measured. Neither can the quality of the entire professional career of an individual be measured. A dentist acquires a professional reputation that may be designated, but only in indefinite terms. Therefore no statement other than a general one can be made for the graduates of the School of Dentistry of Western Reserve University. Numerous instances of high achievements might be mentioned, but the average cannot be defined. However, it is the conviction of those who know the professional careers of many of the graduates trained in this school that they have shown achievement well above the average of the graduates of all dental schools.

Number of Graduates and Students

Up to July, 1940, this school has graduated 1,470 men and women. Five hundred and thirteen more have attended the school without continuing to graduation. This makes a total of 1,987 who have completed their connection with the school. However, this 25.8 per cent who did not graduate cannot be consid-

ered complete loss so far as the dental profession is concerned, because a considerable number of them completed their training in another school and entered the profession.

To these 1,987 who have terminated their connection with the school must be added 126 who are left in three classes at the end of 1939-40, with the presumption that they will continue to graduation, making a grand total of 2,113 students who have attended. This does not include a small number who have left within a month after matriculation and are not included in the students lists, nor does it include a considerable number who entered in 1918 under the Student Army Training Corps and withdrew when demobilization occurred. A comparison of the total number who have enrolled in the school with the number who have terminated their connection for any reason before graduation shows that approximately one out of each four fails to graduate in this school.

The policy of the School of Dentistry of Western Reserve University both in the medical school era from 1892 to 1906, and in the university era beginning in 1917 has been to develop a good school rather than a large one. Hence, in these eras it maintained entrance requirements and standards well above the average of American dental schools and often much in advance of its neighboring competitors. This aided some competitors that were following a policy of having large schools with less regard to quality. One dental school that has long boasted of being large is a near neighbor.

The annual attendance has shown much variation, responding to advance of entrance requirements, to general economic conditions, to ease or severity of standards, and to a variety of other influences. In Appendix VI is given the enrollment for each of the forty-eight years. It is noticeable that in several instances the first year class increased in the year before advances in entrance requirements or in number of sessions in the curriculum, and fell off in the first year of enforcement of these advances.

The Places of Origin of Students

Some years ago the United States Bureau of Education made a study of the residences of all the students enrolled in all the undergraduate colleges in the United States in a single academic year. This compilation showed that three-fourths of the students came from homes within fifty miles of the college in which they were enrolled, that is, that American undergraduate colleges are essentially local institutions.

No similar study has been made of dental schools. The factors differ markedly. The number of dental schools is only about one-seventeenth of the number of undergraduate colleges, and dental schools are less evenly distributed, for twenty-six of the forty-eight states have no dental school. Therefore, in some parts of the country one who wishes to study dentistry must travel several hundred miles from his home to find a dental school.

Several conditions influence the points of origin of students in any dental school. One is the proximity of other dental schools, because few students will pass a school near his home to attend a more distant one.

Another is whether the school is situated inland so that it can draw from a circular area, as a school located in St. Louis, or whether it is situated at a border of the United States and can draw from only a semi-circular area, as a school located in San Francisco, Boston, or Cleveland.

In an attempt to get approximate data as to the source of student supply in the School of Dentistry in forty-eight years, the residences of the students in the forty-eight freshman classes have been investigated. Compilation of these figures shows that fifty-three per cent. of all the students enrolled in the first year have come from Cleveland and eighty-three per cent. from Ohio. No comparative figures are available for other dental schools. Most of those coming from Ohio, outside of Cleveland, are from northern Ohio. The major areas from which this school draws students is within a semi-circle having a radius of about one hundred miles. The northwestern corner of Ohio is nearer a dental school in another state. Graduates locate for practice in

northern Ohio in about the same proportion as they come from this area as students.

Success and Failure in the School

At first sight one would say that the 513 students who have terminated their connection with the school prior to graduation have failed. If by this is understood that they have failed to attain the goal for which they aimed on entering the school, it is true, except for those who transferred to other schools and graduated.

To imply that all who have not continued to graduation were incapable is not warranted. Various other reasons account for failure to graduate. Eight students have died* while still enrolled as students. A few have concluded, after a trial, that dentistry was not to their taste and have entered some other profession, or have gone into business. A considerable number have been compelled to give up the study of dentistry because of lack of financial resources. A few have withdrawn because of ill health. No study of causes of withdrawal of students from the school has been made and it is difficult to ascertain in every case the true cause. However, the majority of those who have withdrawn have been unsuccessful students. The causes of their lack of success are several, and taken all together, form a composite of several factors too complicated to attempt to analyze here.

A related question is the reason for a student's success. In each class are some who excel, and it is desirable to give them some kind of distinction definite enough to be valued. Such distinction serves as both a stimulus and a reward. In an endeavor to meet this need, in 1898 the faculty decided that those students who had achieved superior accomplishments in this school should be designated at graduation with the phrase "honorable mention." This was done first with two students in 1898. The plan continued through the class of 1905 and in these eight classes

Thomas Watkins, d. March, 1903
Barney Herbert Bernstein, d. Dec. 24, 1912

Hugh George Jordan, d. May 11, 1916
Elmer Clarendon Ford, d. Summer, 1917

John Edward Szabo, d. March, 1918
Theodore Benjamin Wisniewski, d. April, 1926

Charles Cecil Speaker, d. Aug. 15, 1926
Cyril Emanuel Fox, d. July 29, 1933

thirty-six graduates received "honorable mention." Four of the thirty-six, Herman C. Kenyon, Douglas A. Wright, Daniel H. Ziegler, and Arthur I. Brown, were later professors in the school.

From 1905 to 1928 no distinctions were accorded to graduates. On March 13, 1929, a charter was issued for Upsilon Chapter of Omicron Kappa Upsilon Fraternity, the dental honorary society. The charter members were Frank M. Casto, I. Lester Furnas, Joseph P. Henahan, Thomas J. Hill, Will H. Whitslar, and William L. Wylie. A considerable number of the alumni of this school have been elected as honorary members, and also a few graduates of other dental schools. The regular membership consists of those elected from each graduating class as an indication of high student accomplishment. The total number who have become members is 131, of whom eight are deceased. These include three groups, the six charter members, the honorary members, and those elected at graduation. The latter, by such election are given a distinction universally recognized among dentists.

Women Students

The question of admitting women was discussed as early as 1893, and each catalogue up to the one printed in December, 1906, stated, "The College does not receive women students." The first woman entered the next year, that is, in 1907-08, and now for thirty-two years women have been admitted, but the response to this privilege has not been marked. The largest number in any session was in 1916-17 when eleven women were enrolled. This was at a time when war conditions prevailed and it was contended that if the World War was prolonged professional men would be so largely needed in military service that civilian practice in all professions, including dentistry, would have to be carried on largely by women. With the early end of the war this stimulus ended and the number of women who have entered since 1918 is small. In the thirty-two years since 1907-08 there have been seven years in which no women were enrolled in any class in the school. Twenty-nine women in all have been enrolled. Of these, seventeen have graduated and three are enrolled in

1939-40. In addition to women enrolled as candidates for the D.D.S. degree, five registered in the course for dental assistants that was conducted in 1914-15 and 1915-16.

Alumni Association

In the catalogue published in January, 1896, is a notice of an alumni association. It is probable that this was organized at the time when the second class graduated in 1895. This association was active up to 1906, the end of the medical school era, but in the affiliated era the activity decreased and soon became negligible. Early in the university era an attempt was made to revive it and in 1920 a meeting was held, but for nearly ten years the association was lethargic, in part because of the disdainful attitude of the graduates of the medical school era and of the university era toward those who graduated in the affiliated era.

Beginning about 1930 there was a real revival of interest among the graduates of the school, and the alumni association became active. This activity has increased and in recent years the alumni meetings at commencement include a full day of demonstrations and draw a large attendance to the school. The alumni now give not only their moral support, but many contribute money each year. While the individual contributions are small, the aggregate amount is helpful in maintaining features in the school that might otherwise have to be abandoned. The alumni are an active factor in the welfare of any educational institution and their interest in the School of Dentistry of Western Reserve University heartens the faculty and administration.

Student Organizations

Throughout the greater part of the nineteenth century in medical schools were found informal organizations of students and teachers which met at stated intervals, usually twice a month, for discussion of questions of common interest. They were patterned after the literary societies in undergraduate colleges. In the latter part of the nineteenth century dental schools copied this program. These organizations had officers and kept records. At each meeting one or two students presented a prepared essay which was followed by general discussion by both

students and teachers. Sometimes these organizations adopted the name of a man prominent in early American dentistry, but often the name of some popular teacher in the school.

In 1896 such a society was organized in the College of Dentistry of Western Reserve University, and was called the Wilsonian Society, in honor of Professor George H. Wilson. It was active through the medical school era, but in the affiliated era its activity gradually decreased. It became dormant about 1912 and after that no mention of it has been found. In 1936 a similar society was organized among the students, but after three years this became dormant. A student orchestra was formed in 1896 and the catalogues up to 1910 continue to mention a musical club. Nothing of a musical nature has existed in recent years.

Fraternities

Greek letter fraternities originated in undergraduate colleges, the first having been organized in 1826. These were not extended to any type of professional school until more than fifty years later. The first dental Greek letter society was organized in 1883.

These societies, familiarly called "fraternities," have come to have more influence in dentistry than in any other profession, both in the schools and among practitioners. In undergraduate colleges and in all other types of professional schools, the activity of these organizations is restricted to the undergraduate careers of the members, but in dentistry, there are two definite branches of each fraternity, an undergraduate and a graduate. The latter is highly organized and in several fraternities is much concerned in dental politics, which is much more emphasized in dentistry than in any other profession. Each dental fraternity has a status in the profession comparable to political parties in civil life. Fraternity politics is influential in every dental school.

The first dental fraternity in the School of Dentistry of Western Reserve University was Delta Sigma Delta, the oldest of all. The Lambda (eleventh) chapter had its preliminary organization on October 10, 1896. The charter was issued January

16, 1897, and the first meeting was held January 23, 1897. Its charter members were

Clayton R. Baldwin	'97	Foster O. Dudgeon	'98
Luther L. Bosworth	'97	Herman C. Kenyon	'98
Arthur L. Higgins	'97	Joseph W. McDill	'98
Fred L. Ludwick	'97	John B. Reeves	'98
Aubrey L. Parsons	'97	Cameron R. Stewart	'99
Burt E. Saunders	'97	Samuel M. Weaver	'99
William F. Spargur	'97	Daniel H. Ziegler	'99

Up to May, 1940, this chapter has initiated four hundred and eighty-one men.

The third oldest dental fraternity is Psi Omega, founded in 1892. Its Epsilon (fifth) chapter is in this school. The preliminary organization was on November 11, 1895. The charter is dated November 1, 1896. Its charter members were

William Oscar Haldy	'96	Harry Milton King	'97
John Wm. Lewis Thomas	'96	Wilbur Jacob Stephan	'97
Clarence Wilson Davis	'97	George William Otto	'98
Charles Andrew Fink	'97	Robert Stewart King	'99

The two last named went elsewhere and graduated. Up to May, 1940, this chapter has initiated four hundred and seventy-four men.

The second oldest dental fraternity is Xi Psi Phi, founded in 1889. The local chapter was Alpha Sigma. Its preliminary meeting was about October 1, 1923. Its charter was dated November 6, 1923, and the first meeting was held December 11, 1923. The charter members were:

Leo B. Gizewski	'24	Carl H. Hornsby	'25
John J. Stofan	'24	Charles B. DeGruchy	'25
August L. Strachowsky	'24	Gail J. McNeeley	'25
Lloyd D. Hart	'25	Leonard F. Prendergast	'25
Norman L. Hiscox	'25	Paul P. Sherwood	'25

This fraternity initiated members each year for several years; then its activity diminished and in 1933 the chapter became inactive and the charter was given up. The number initiated was fifty-five.

In 1913 a group of students in this School of Dentistry organized a local society, which they called a fraternity, under the

name of Alpha Zeta Gamma. Up to 1936 this local society accepted about one hundred members. In 1937 a charter was obtained of the national fraternity, Alpha Omega, which was organized in 1907. The charter was issued in 1937 and the first meeting under the charter held September 27, 1937. Under this charter about twenty-five members have been initiated. After this charter was received all former members of Alpha Zeta Gamma were made official members of Alpha Omega so the total number of members is about one hundred and twenty-five.

This shows that of the 1,987 students who have attended the school a little over 57 per cent of them have joined a fraternity. Statistics show that the proportion of fraternity members who have failed to graduate is less than 25.8 per cent, which is the proportion of all students who have not graduated.

This is due in part to the fact that initiations do not occur until some information is available as to the quality of students so that those who appear unlikely to succeed are not initiated, in part to the fact that members of a fraternity stimulate each other to succeed, and in part to the help upper classmen are able to give the beginning student. In each fraternity there is a definite effort to aid members who are indifferent, so that the total influence of fraternity membership is to improve accomplishment.

Participation in University Extra-curricular Activities

Until 1917 the School of Dentistry was located over four miles from the university campus. The distance was too great to elicit much interest from dental students in activities on the campus. When about 1913 men who held any degree became ineligible for participation in intercollegiate athletics, most of the students in the law and medical schools were no longer available for university athletics, and, in searching for available material for teams, the dental student body began to be called upon. In each of the next four years, therefore, a few dental students engaged in university athletics.

Upon removal to the university campus their interest in athletics increased and a considerable number were on the teams, especially in football and basketball. Since 1917 the dental stu-

dents have continued to use the university gymnasium. The dental school schedule so fully occupies each student that few have time to engage in student activities, but for the past twenty-five years the dental student body has been represented on the university student council.

At times the dental school has been included in the annual student publication, but usually it has been omitted. Also at times the dental students have had representation on the editorial board of the student weekly, but dental students have taken small part in the literary extra-curricular activities of students in the university.

CHAPTER XV

THE FOUR LOCATIONS OF THE SCHOOL OF DENTISTRY

In the Medical Building from 1892 to 1896

When the medical faculty decided to organize a dental department in 1892, the medical school building was essentially new, having been occupied but five years. It was a brown sandstone structure 145 by 80 feet and four stories high. The fourth floor, which had never been occupied and was not finished, was assigned as quarters for the dental department. Although the building was large, so much space was occupied by the central hall and the amphitheater that this fourth floor had but two rooms, each eighty by thirty-two feet and poorly lighted by dormer windows. A total floor area of a little over five thousand square feet was available to establish dental teaching. The west room was used for technic laboratories until June, 1895. It had a small lecture room at one end and a store room at the other. The east room was used for the clinic. There were also a small lecture room and an extraction room. A sloping skylight, twelve by thirty feet, gave, under favorable conditions of weather and cleanliness, fair natural light.

This location was unfavorable for the clinic because patients could reach it only by climbing three long flights of stairs or by a freight elevator that was none too attractive. Less than two thousand dollars was available for equipment. As a result the laboratory was equipped for gas, but had only rough wooden benches, with lathes and one vulcanizer on a separate bench. However, the catalogue said that the room contained "Every appliance which a first class laboratory should have." The clinic had fifteen chairs without water, gas, or electric connections. Artificial light came from overhead gas chandeliers with gas mantels on the jets. There was no separate waiting room for patients and they sat on chairs along one side of the clinic room. A few wooden lockers were installed for students' use. The equipment was meager. Yet under the energetic direction of

Dr. Whitslar and Dr. Wilson good work for that era was carried on for four years. Within two years increase in the number of students made it evident that the quarters were poorly located and inadequate in size. Moreover the medical faculty had decided to extend the medical curriculum and had given notice that the space occupied by the dental department would soon be needed for medical teaching.

On November 10, 1894, President Thwing stated that "it is almost imperative that we have new quarters." An architect was present at a faculty meeting on November 17th and building needs were discussed. A committee on building and equipment was promptly appointed. The members worked vigorously. They considered three buildings and two vacant sites, but each was rejected. On May 25, 1895, the trustees authorized their executive committee "to sign contracts for erection of a building for use of The Dental College." This building was to be located on St. Clair Avenue near the medical college and to be four stories high. The project was announced in the daily papers, but, for lack of funds, it did not materialize.

Plans for an entire building were postponed and in December, 1895, it was announced that a lease for five years of the two upper floors of the Bangor Building had been signed. This building was then in course of erection by a commercial firm, and space to suit the needs of the College of Dentistry could be arranged.

In the Bangor Building from 1896 to 1910

This six-story building was located on the south side of Prospect Avenue about two hundred feet east of Erie Street, now known as East Ninth Street, and the lower four floors were occupied by the owners. The location was favorable—only four blocks from the medical building where students received instruction in the medical sciences, and not far from the emergency district of the city from which patients would presumably be drawn. It was on a street car line by which patients living in other parts of the city could reach the school. The front of the building was attractive, with a good sized entrance and good passenger eleva-

tor service to the floors occupied by the dental school. Adjacent buildings were pleasing.

In every way these quarters were superior to those in the medical school building. As a result the number of operations in the clinic increased from about 1900 in 1895-96 to over 5200 in 1896-97.

With rooms newly appointed and well lighted and with 13,000 square feet of floor area—two and a half times that in the old quarters—and with considerable new equipment, the change of location seemed a happy improvement. Along with the closing of the local rival dental school and the growing reputation of the College of Dentistry, this contributed to the increase in attendance from fifty-three in 1895-96 to eighty-six in 1896-97—the largest percentage of increase in any one year in the history of the school.

Space on the two floors was divided into a clinic with forty operating chairs, three technic laboratories, two smaller laboratories, an extraction room, a museum, a library, an office, and a lecture room with a seating capacity of seventy-five. The catalogue stated that the space was planned to accommodate a total of one hundred and fifty students.

For a few years there was a considerable degree of contentment, but in 1900, with increased attendance and with the approaching expiration of the five-year lease, the faculty again expressed its desire for an entire building situated in a favorable location and arranged to suit the particular needs of dental teaching.

A committee of the faculty was appointed, but for a year made little progress. In the winter of 1901 architects' plans were made for a new building to cost twenty-five thousand dollars, and arrangements for a loan to erect it progressed. A gentleman was found who was willing to erect the building provided the dental faculty and the university trustees would agree to amortize the loan at a given rate per year, but the annual payment seemed too great and the project was abandoned.

On July 13, 1901, the lease on the quarters in the Bangor Building was renewed at advanced rental, but with privilege of



THE MEDICAL BUILDING, 1892-96

THE BANGOR BUILDING, 1896-1910

THE BUILDING AT 2450 EAST NINTH STREET IN 1940. 1910-17

THE BUILDINGS OF THE FIRST QUARTER CENTURY

termination under certain conditions. With the class entering in September, 1901, the attendance reached the highest point up to that time. The desire of the faculty for a new building was again presented. After a series of faculty meetings the question was taken to the trustees who on December 17, 1901, voted that "the dental school remain in its present quarters."

Soon another stimulus arose. Early in the winter of 1902 negotiations were begun looking toward the fusion of the Medical Departments of Western Reserve University and Ohio Wesleyan University. One of the conditions was that Western Reserve University should buy the building situated on the present East Fourteenth Street. It had been erected in 1896 and was occupied by the Medical Department of Ohio Wesleyan University. The dental faculty voted on March 10, 1902, to recommend to the university trustees that this building be bought for the use of the College of Dentistry. When the negotiations for the merger of the two medical schools failed, the possibility of this building for the College of Dentistry terminated. The merger was finally accomplished on July 1st, 1910, but by that time the College of Dentistry was in the affiliated era.

In 1903 the National Association of Dental Faculties decided to extend the dental course to four sessions. In February, 1903, it was reported that the participation of the Medical Department in dental teaching would terminate in June, 1903. These two events again stimulated the question of new quarters for the College of Dentistry. In January, 1904, the rental of the building on Bolivar Street, which from 1890 to 1898 had been occupied by the Cleveland Medical College, a homeopathic institution, was discussed, but the proposal was not considered feasible.

In April, 1904, President Thwing recommended that the College of Dentistry be moved to the university campus to occupy the old refectory now known as Cutler Hall, and part of the dormitory now known as Pierce Hall. Throughout the nineteenth century it was traditional that a medical school must be located near the poorer districts in order to be available to patients for its dispensary—an essential teaching feature of every school. This tradition also ruled in dental schools, for it was held that

patients would not go readily to a dental dispensary or clinic remote from their homes. The fallacy of this tradition has been amply proved in the past thirty years when most new medical schools and dental schools have been built in attractive locations far from city slums. It has been found that indigent and semi-indigent patients will go to a dispensary or clinic wherever it is located provided that transportation facilities of street railways make it accessible. However, in 1904 the tradition was dominant and the dental faculty decided against removal to the university campus.

It seems probable that the dental members of the faculty who opposed this change in 1904 were somewhat influenced by the inconvenience in time and distance of the location in relation to their professional offices in the center of the city; for few dentists had automobiles, and street car transportation was about the only means by which teachers could reach the school. This condition would, to say the least, make them less resistant to the old tradition that a clinic must be near the slums.

In the opinion of the author this opposition to President Thwing's plan to move the College of Dentistry to the university campus was the gravest single mistake made by the dental faculty in the entire history of the school. The building would have afforded ample space and good natural light at a low cost of maintenance. Had the school been located on the campus it probably would not have been permitted to pass into the hands of commercial interests, and the affiliated period of its history would never have occurred.

Rapidly the fortunes of the School of Dentistry were waning and no more is heard of a new location in the first period of the school's history.

The Third Location—2450 East Ninth Street—from 1910 to 1917

When the school was sold in 1906 the second term of five year's lease was about to expire. Dr. Brown extended the lease for a shorter term. However, in ten years retail business and property values in that neighborhood had increased and forced rentals higher. When they continued to rise a less expensive

location was sought, although publicly it was announced that the removal was to be nearer the emergency district.

In the summer of 1910, after fourteen years in the second location, the school was moved to the second floor of a business block on the west side of East Ninth Street. This third location was less attractive and the business of the neighborhood of a very different type. In fact, the lower floor of the building was occupied by produce commission merchants. It was two blocks farther from the School of Medicine, but this made no difference because there were no teaching relations at that time between the two schools.

The new location had the advantage of being on the second floor with no need of elevator service. The space was all on one floor, the area being about the same as in the second location. The clinic was the central feature. A lecture room and two technic laboratories were supplemented by a few small rooms. Little or no new equipment was added, that which was from six to eighteen years old being retained.

The catalogue printed in July, 1910, describes this "as a magnificently appointed building...with facilities...among the best in the country," an extravagant and untruthful statement which was toned down so that by 1913 the building was stated to be "well appointed" and by 1915 the facilities were said to be "very good."

The third location, which was occupied for seven years, was, except for the clinic, distinctly inferior in location, arrangement, lighting, and equipment to the second location. Outside the clinic the equipment was nearly negligible. When the present writer was called upon in December, 1916, to make inventory of it, he found that the total value of everything movable in the school was about \$16,000. The major item was forty operating chairs.

*The Fourth Location—Adelbert and Commington Roads—
Since 1917*

In 1912 the School of Medicine made plans for a new building to be located on Lakeside Avenue opposite Lakeside Hospital. However it became evident that, for various reasons, the

hospital would probably be moved in the not distant future, and a common location for hospital and medical school was discussed. Although no decision had been reached, the opinion was prevalent by 1914 that the new location would be in the vicinity of the university campus.

The minutes of the dental faculty of September 28, 1914, record progress in purchase of land for a new building. The catalogue published in July, 1915, states that the school "has long felt the urgent need of a building of its own...a site has been purchased where a building...will be erected." The purchase was made in the early months of 1915 by Dr. H. M. Brown of a location adjacent to the university campus and adjacent to land that was then under consideration for new medical buildings. The purchase of this later was authorized December 7, 1915.

By the time Dr. Brown made his purchase teaching relations between the medical and dental schools had been resumed in one subject and it seemed probable that they would be extended. Therefore, it appears highly probable that the selection of land by Dr. Brown was influenced and probably decided by the projected new location of the School of Medicine, although at that time there was no indication that the affiliations with the university would be terminated.

There was another reason for location near the university campus. In 1914 it was evident that the course of all dental schools would soon be extended to four sessions and that the curriculum would include not only chemistry, but biology and physics. Location near the university campus would make the laboratories on that campus in these three subjects available for teaching dental students. Later, because of already crowded conditions in the chemistry laboratory on the university campus, it was decided to include a chemistry laboratory in the new dental building.

The contract for the new building was let by Dr. Brown on October 13, 1915. The university purchased the building in 1916. In September, 1917, when the School of Dentistry was removed it occupied the entire new building, a desire of the faculty oft repeated over a period of more than twenty years.

This building is 140 by 80 feet, with steel framework reinforced by concrete and faced with brick. It is three stories high. The first floor contains laboratories, lecture rooms, and the prosthetic clinic. The north half of the second floor is occupied by the clinic which is two stories in height with excellent north light. It accommodates ninety operating chairs. On the second floor also are offices connected with the clinic, an extraction room, x-ray rooms, a patients' waiting room, administrative offices, and a library. The third floor accommodates the chemical laboratory now used as the laboratory of basic technology, a lecture room, and the orthodontia clinic. Various changes in the use of some of the rooms have been made in the twenty-three years since the building was first occupied.

In 1917 the old equipment was moved from the third location, and approximately as much new equipment added. Most of the old equipment has since been replaced, and additions have been made from time to time.

The fear that clinical patients would not come from the poorer districts of the city was soon found to be groundless. From the first the attendance in the clinic has increased and at no time has there been a lack of the necessary number of patients to carry on the clinical teaching.

There were times of large attendance when the building was much crowded and the need of additions to the building was discussed, but with raising of entrance requirements the attendance was reduced to what the building would comfortably accommodate, since certain subjects were no longer taught in the dental building.

This building has been reasonably satisfactory for its purpose and after nearly a quarter of a century is in good repair and bids fair to accommodate the School of Dentistry for a considerable period in the future. Its proximity to the School of Medicine and to all other schools of the university has proved an advantage in many ways. When the semi-centennial of the school comes in 1942 exactly half of the life of the School of Dentistry of Western Reserve University will have been spent in the building it now occupies.

CHAPTER XVI

SOME CONCLUSIONS CONCERNING THE PAST AND SOME INQUIRIES CONCERNING THE FUTURE

It is appropriate in a final chapter to summarize the more important features in the history of the School of Dentistry of Western Reserve University. Such summary must be based not only on facts and discussions set down in the preceding chapters, but also upon much data not there included. It is inevitable that the opinions of the author, developed through twenty-seven years of intimate contact with the school, its staff, and its students, will enter to some extent.

The founding of the Dental Department of Western Reserve University in March, 1892, came at the crest of a wave of the organization of new dental schools in many states of the country. A dental school had been contemplated in connection with three of Cleveland's four medical schools, and had been actually put in feeble operation in one of these local schools.

The courage, vision, and judgment of President Thwing in founding the schools of law and dentistry in 1892, without financial support from the trustees, have been fully justified by the continued success of the Law School and by the present status of the School of Dentistry. Neither he nor anyone else could foresee the changes imminent in medical education, both nationally and locally, which interfered with the early progress of the School of Dentistry and resulted in the long period of adversities and uncertainties.

From two sources arose the immediate stimulus that resulted in renewing dental education in Western Reserve University, which had been discontinued in 1881, after a period of seven years when there was one professorship of a dental subject in the medical department. The first source was the advent of a new president of the university who was desirous of more fully serving the community through broadening the university opportunities. The second and fully as potent influence was the

insistent and immediate desire of the medical faculty to inaugurate dental education to meet the competition of a local sectarian medical school which had started a dental school in 1891.

The Dental Department of Western Reserve University was started as a part of its medical school with practically the same preliminary educational requirements and length of course. Almost unheralded, and unexpected to most educators, there arose just at this time throughout the country an impetus for advance in medical education. The basic and immediate causes of this phenomenon are too extensive to be discussed here. In addition to this, within a year, fires long smoldering in the medical faculty culminated in an eruption that brought a change in its control, and at this crucial moment an endowment was given to the medical school, a thing practically unknown in medical education. These three unexpected happenings of great potentiality, two within the university and one outside, were almost coincident with the founding of the Dental Department.

Another condition not so well known explains why the university trustees consented to the founding in 1892 of two new professional schools without making financial provision for their maintenance. There was in the university a new undergraduate college, but four years old, an innovation in education and arising in 1888 as a solution of a local controversy in the university concerning co-education. The founding of the College for Women was a move in advance and is now well justified, but the immediate reasons for its founding were largely of expediency. The university, still new to its Cleveland location, could not hope to succeed unless the conflict regarding co-education was quieted. To solve the problem the College for Women was organized in 1888, and in 1892 the trustees had the responsibility of conducting two undergraduate colleges with a total enrollment of but a hundred and thirty students. Expense of maintenance of two undergraduate colleges was considerably increased over the requirement for one such college and the trustees found themselves facing increasing deficits that must be met by their own personal gifts. If the College for Women were permitted to fail, the co-educational controversy would be renewed and this might mean

failure of the entire project of undergraduate education in Cleveland.

When the question regarding the two new professional schools in law and dentistry arose, the trustees had to choose between dividing their support among four institutions, three of them new and with no endowment, or taking the alternative course of concentrating all their financial support on the two undergraduate colleges, which seemed more needed and more important in terms of community service. During a considerable period they were severely criticized for this action.

The concentration of financial support upon the undergraduate colleges meant no help to the two new professional schools unless it should come from new sources. Criticism of such action today might be valid, but not so in 1892, because at that time practically every school of law, medicine, and dentistry in the country, outside the state universities, was self-supporting. In Western Reserve University the Medical Department had been self-supporting for nearly fifty years, and with a new building, one of the best in the country, gave promise of advance, and it was upon the predication of close cooperation and fostering care by the Medical Department that it founded a sub-department to teach dentistry. Had the relations between the Medical Department and its Dental Department, agreed upon before the latter was founded, been carried out, there is every reason to believe the latter would have enjoyed continued prosperity. But it was the partial abandonment of the school by the medical faculty in 1894 and the complete divorce in 1903, howsoever good and valid may have been the reasons for these actions, that lay at the root of the struggle forced upon dental education in Western Reserve University.

The question has often been asked, why, since these two new professional schools were nearly simultaneously established in 1892, each under the policy of no financial support from the board of trustees, it came about that the Law School had uninterrupted success while the School of Dentistry faced one adversity after another. There were four outstanding reasons for these diverse experiences. In the first place the Law School immedi-

ately received a gift of \$50,000. Had any person at that time given an equal amount for dental education, the early years of the School of Dentistry would have recorded a different story.

Secondly, the Law School was located on the university campus. That proximity brought it support and sympathy that did not pertain to a university department located in a distant part of the city. Furthermore, had the dental faculty not made the mistake in 1904 of refusing to move to the university campus, the School of Dentistry would have enjoyed privileges that otherwise were denied.

In the third place the current expense of operating a law school included no laboratories, and no expensive equipment except its library. The time required from its teachers was only a few hours a week, and housing, equipment, and staff demanded far less expenditure than these items for a dental school. Hence nearly every law school is self-supporting, and in some of the best universities the law school turns an annual surplus into the university budget.

The fourth reason is that a concept of legal education is much more common than is an understanding of dental education among the members of a board of trustees, hence a less sympathetic attitude toward the problems of dental education may be expected.

Another inquiry is frequently made: Why did the board of trustees refuse financial aid to the dental school in the crucial years of 1902-06 at the end of the medical school era? The explanation is the same as offered in 1892, namely, more insistent demands for additional funds in other departments of the university. The Medical Department at that time was almost as badly in need of funds as the College of Dentistry. Premature advancement of entrance requirements left it with but few students and a large fixed operating expense. There was in the Medical Department a large investment, a far greater public appeal, and a much longer and more enviable record. Failure of the College of Dentistry was considered a lesser disaster than failure of the Medical Department. Furthermore financial resources were inadequate for all, and consequently concentration

of effort upon the Medical Department was considered a policy of greater wisdom.

Perhaps the sharpest criticism of all actions in connection with professional education in the university is the sale of the College of Dentistry to Dr. H. M. Brown in 1906, together with the right to operate under a loose affiliation with the university. This action is usually charged to President Thwing personally. The author, however, differs in opinion and believes he has shown that it was the concurrent action of the board of trustees and not of any individual.

If it be granted that the university could not support dental education, then why did it not abandon this type of education rather than affiliate with a school owned and controlled by a corporation organized for profit? After a period of thirty-four years has elapsed in which a continuous study has been given in regard to all conditions concerned and a careful analysis made of the ultimate results, the author concludes that the action of the university at that time has proved to be the best and wisest move that could have then been made.

In support of this conclusion certain explanations are offered. The university had incurred obligations in connection with the College of Dentistry in the form of unpaid salaries, and bank loans, which were in considerable amount. It did own, to be sure, equipment for dental teaching, but this must be sold intact to realize enough to discharge these debts; otherwise the obligations must be met from another source, and no other source could then be designated. There seems no need to argue that to sell was the wiser, in fact the only thing to do, provided a suitable or satisfactory buyer could be found. Furthermore, if the equipment were sold, the sale must be predicated upon the continuation by the buyers of the operation of a dental school. This, too, was a responsibility which could not be entirely disregarded by the university.

Besides, in 1906 there was a fertile field for a dental school in Cleveland. If Western Reserve University had entirely retired from dental education another school might have been organized under proprietary control and without any kind of university

affiliation whatsoever. In such case it is likely that the school would have been conducted on a purely commercial profit-making basis with a resultant prostitution of dental education in this community.

It was hoped that affiliated relations with the university would bring some small measure of educational restraint and offer expectation of a better school than a purely proprietary one. Such relations were usual in dental education in all parts of the country, and this affiliation was considered a justifiable educational procedure for that time. It is reasonable to say that the action of the trustees should be judged by the customs of 1906, not by those of 1940.

Furthermore, it should be borne in mind that this affiliation was but a temporary expedient dependent upon the time when financial conditions would permit the university to enter upon a comprehensive and permanent program of dental education.

If no affiliation had been made by Western Reserve University in 1906, it is probable that an affiliation would have been made with one of the other local medical schools. Such an affiliation was discussed in 1903. In such case, when Western Reserve University should wish to reenter the field of dental education it would have to start anew and with the competition of an older dental school. Moreover, if one of the other medical schools had adopted the dental school, that medical school would have been strengthened, and either the consolidation of the two regular medical schools which occurred in 1910, or the discontinuation of the homeopathic medical school in 1914 would probably have been delayed. Thus indirectly the affiliation with the privately conducted dental school in 1906 contributed to the unification of medical education in Cleveland into one institution, a condition that has certainly been beneficial.

Affiliation itself was not so much open to criticism as was the manner in which the school was operated. A termination of the contract by the university might have resulted in the closing of the proprietary dental school, but the present status of the school offers ample proof that rehabilitation was the better method.

It is quite true that the reputation of the university did suffer somewhat during the period it sanctioned the loose affiliation with the dental school, but the essential problem to consider was the type and character of dental education that ultimately could be offered to the community of Northern Ohio under an institution fully controlled by the university. Unfortunately, the affiliated era was a commercial rather than an educational one. Even so, up to 1911, conditions in the College of Dentistry were about on a par with many of the other dental schools of the country. The greatest difficulties did not occur until the last five years of the affiliation era.

The marked success of the university era may be attributed in large part to the loyal team work and unselfishness of the faculty. The success and progress becomes more remarkable when one considers that the school had practically no endowment, except that given by the personal sacrifices of its teachers, but this proved more valuable than mere dollars. It is a truism that in all educational institutions the devotion and loyalty of the teaching staff is the essential factor in success.

Reviewing almost a half century of the school's history, the extension and betterment of the course in dentistry is a striking feature. In that period no other professional education has been more extended. The increase in the length of the professional school course, the advance in entrance requirements, and the broadening of the dental curriculum to include more of the medical sciences are sufficient evidence of this fact.

Dental training of forty years ago was predominantly training in the art of dentistry, and, while that predominance has been diminished by inclusion of general, medical, and more of dental science, yet there is today no other profession in which the art of the profession is so much stressed during the career of the student as in dentistry. As a matter of fact, when the preceptorial system became decadent, the professional schools, with the sole exception of the dental schools, made no attempt to supply this deficiency, so that candidates for other professions

had to learn their art empirically after graduation with little or no experienced guidance.

The introduction of moot courts and of the case system has somewhat remedied this defect in the law schools. Students of pharmacy usually compound hypothetical prescriptions written by hypothetical physicians for hypothetical patients, except where, as in Western Reserve University, pharmacy students participate in the actual pharmaceutical work of the hospitals. The student of medicine is a spectator, except in the dispensary, clinical obstetrics, and clinical clerkships, so that not until after graduation, when he enters upon hospital internship, is he initiated into the art of medical practice.

The student of dentistry, on the other hand, comes in direct and responsible contact with many patients. He actually carries through all the steps in most of the procedures included in the present day practice of dentistry. He gives anesthetics and performs extractions. He takes impressions and performs repeatedly all steps in making both partial and complete dentures and in making and applying bridges and crowns of all types. He executes all types of operative dentistry including diagnosis, treatment, and reparative work. He repeats these procedures to a total of several hundred operations under the supervision of a competent instructor, who is a licensed practitioner. The result is that the dental student at graduation has had training in the art of his profession that is by no means equalled by the graduates in law, medicine, or pharmacy.

Dentists now in practice have all been educated under a system in which training in the art of the profession has been particularly stressed, and believe that such training is an essential part of the dental course. Perhaps this system has been somewhat over-emphasized in the past, but it has been relatively diminished in the curriculum in recent years. If it may be said that training in the art of the profession predominates too greatly in the dental course, it may with equal truth be said that there is too little of it in certain other professional courses.

These paragraphs have been written as a warrant for the conclusion that medical and dental graduates by reason of wide

differences of training, not only in kind, but in method, are unable to understand fully the educational attitudes of each other. From this comes the natural deduction that if the dental course needs to include more scientific training, it can be secured in this generation only by cordial cooperation of dental and medical faculties, but if dental schools come under undisputed control of medical faculties there is grave danger that such schools will lose that training in the art of dentistry which has brought American industry to world leadership.

The history of attendance of students in the School of Dentistry of Western Reserve University shows certain things which merit repetition here. The area from which students are drawn is essentially local. It is only occasionally that they come from homes or colleges more than two hundred miles distant. A corollary is that most of the graduates practice within this same area, and therefore the major part of the dental service afforded to the people within a distance of a hundred miles of Cleveland must be given by the graduates of this school. It follows, therefore, that the community within such an area should be personally, economically, and vitally interested in the quality of dental education in Western Reserve University.

In the course of this narrative references have been made to resignation and appointment of teachers. It is the opinion of the author, and of many other educators, that one of the chief problems in present day dental education, and an outstanding menace to its future, is instability of the teaching staffs, the consequence of which is likely to be a staff including a considerable number of inexperienced teachers.

Although dentists and physicians recognize specialties in their professions, proficiency in which can only be secured after long study or experience based upon specific professional education, they fail to realize that proficiency in the art of teaching is also likewise attained.

Teaching in a dental or medical school is a specialty, not of dentistry or of medicine, but of the profession of teaching itself, and it can be worthily entered upon only by means parallel to the entrance to practice of a specialist in any other profession.

There are schools for training in the science of teaching, that is, in the theory of education and in the art of pedagogy, but few medical or dental graduates have access to them. There are no schools for training in either the science or the art of the specialties of teaching here involved. Hence the only recourse is to the age-old method of apprenticeship, that is, the study of the science and practice of the art of dental teaching through direct contact with one already skilled in it.

Teaching in dental schools has gone on for years on the false premise that any graduate in dentistry is fitted for dental teaching, and also on the almost equally false assumption that unless one be a graduate in dentistry he is not fitted to teach dental students. So it has come about that the majority of dental students have spent more than half of their time in serving as experimental material for immature men who were totally untrained in the science of education and inexperienced in the art of teaching.

The remedy lies in attracting to this particular teaching specialty young men of broad fundamental education and, preferably, although not necessarily, with a dental education, who have through their own efforts acquired some capability in the science of teaching, and then through apprenticeship gained proficiency in the art of teaching. Such an outcome can be secured only through the selection of men who have more than the minimum of education. Desirable dental teachers will be developed from men who have breadth and depth of general education rather than mere proficiency in the art of dentistry.

This dental school has kept reasonably well in advance of most dental schools of the country. There have been times of uncertainty, of hesitancy, or marking time, and even of retrogression, but its history, as a whole, is worthy. The major reason for its not having been among the leaders at all times is the lack of financial support. In this century it has become fully evident that adequate dental education cannot be given on a self-supporting basis. The long experience of medical schools has demonstrated that medical students do not and probably could not pay the entire cost of adequate medical education. This is

equally true of dental students. Therefore, until dental schools are supported by the community, either through taxation or by philanthropy, dental education cannot rise to the level where it can give to the community a product fully commensurate with its needs.

In Western Reserve University the needs of the community must be met if the School of Dentistry is to discharge its full responsibility. The resources of support cannot be predicted, but the entire community for a hundred miles around Cleveland should be interested in supporting this school to the end that it may reach its highest efficiency. This is not only a concern of present day members of the community, but of future generations, for, insofar as their happiness, health, and appearance depend upon adequate dental service, they must rely chiefly upon the product of this school.

During both the medical school era and the university era this school has in many respects been a leader in dental education. A few of the particular things in which it has led may be briefly summarized.

Nearly twenty years before the dental school was founded the Medical Department of Western Reserve College established, and carried on for seven years, a full professorship in dentistry on a level with other professorships in the medical faculty. The author has examined the faculty lists of many medical schools of that era and has failed to find any other medical school that gave equal recognition to instruction in dentistry to medical students.

This school was the first in Ohio to be a department of an educational organization that was really a university although one organization, composed of professional schools only, used the term university.

In its early years, in administration of entrance requirements, this school maintained standards requiring more preliminary education than the standards of the National Association of Dental Faculties, and more than other dental schools, except three or four, in the country.



THE SCHOOL OF DENTISTRY IN 1940

This school increased the length of session to eight months in 1895 when nearly every other dental school was satisfied with a session of six months.

At its foundation, this school adopted a curriculum much broader than any except that of one or two schools of that era, a curriculum far more comprehensive than the standard set by the National Association of Dental Faculties. It was one of a very few schools then to offer to dental students instruction in the phases of clinical medicine related to dentistry. In recent years much is being written concerning the intimate correlation of dentistry and medicine. The School of Dentistry of Western Reserve University incorporated that principle into its curriculum nearly fifty years ago.

In the university era, this school was one of the early schools to require, in 1922, one year of undergraduate college work for entrance, and also one of the schools to require as early as 1927, two years of such work for entrance, which requirement ten years later became the standard for all dental schools. This school resolutely adhered to the conviction that the proper standard is two years of study in an undergraduate college and four years in the dental school, while many dental schools dawdled with the idea that the professional education and training could be adequately given in three sessions. After ten years of debate and indecision, which much delayed the advance of dental education, these schools finally acknowledged that this idea was fallacious and came to the standard which had been maintained throughout at Western Reserve University.

This school was the first to revise its catalogue to give accurate and detailed information regarding its curriculum and courses and to make the dental school catalogue comparable with that of the better undergraduate college and medical school.

This school was one of the first to adopt and publish in its catalogue comprehensive and detailed specifications of entrance requirements and promotion so that the student might know exactly what measure of accomplishment was necessary to progress to graduation and practice. Essentially the same specifications were adopted by the Dental Educational Council of America

and thus came to set the standards of student accomplishment in American dental education.

This school was a pioneer in introducing into the curriculum several types of courses such as economics, general ethics, dental history, general hygiene, general technics or basal dental technology and elementary medicine all of which subjects are now usual in dental education.

The School of Dentistry of Western Reserve University has throughout its career advanced at frequent intervals both the quantity and quality of education and training to prepare men and women for the efficient practice of dentistry.

After a critical review of the history of the School of Dentistry of Western Reserve University for the past forty-eight years, the period of its existence, with its many unexpected and unpredictable changes and developments, and in consideration of the many problems with which dental education will be faced in the future, one would be courageous indeed to prophesy the future status of this school.

However, it can be said that at present this school is giving better training to its students than at any previous time. How much better this training may become and how far this school will contribute in administering to the relief of human distress, through scientific investigation and application of the fundamental principles in practice will depend upon continued university support, adequate finances, strong leadership, loyalty of the faculty, efficient teaching, cooperation of the alumni, and the quality of students admitted.

APPENDICES

I. Resident Dentists in Cleveland before 1861

Concerning Dental Department Homeopathic Hospital College and Cleveland University of Medicine and Surgery, 1891-96.

II. Teachers of Dental Subjects

III. Graduates and Non-graduates

Concerning the School of Dentistry of Western Reserve University from 1892 to 1940

IV. Officers

V. Teaching Staff

VI. Enrollment and Graduates

VII. Dates of Opening and Commencement

APPENDIX I

RESIDENT DENTISTS IN CLEVELAND BEFORE 1861

<i>Years in Cleveland</i>	<i>Name</i>
1845-46	James C. Aiken
1852-68	Nathan Hardy Ambler* d. Cleveland, Ohio, Nov. 19, 1888, aet. 64
1853-61	William H. Atkinson* M.D. 1847, Willoughby Medical College D.D.S. 1859, (Hon.) Ohio College of Dental Surgery d. New York City, April 2, 1891, aet. 76
1845-46	William Bailey
1859-?	W. J. Beattie
1848-53	A. D. Bigelow, M.D. D.D.S. (Hon.) 1852, Ohio College of Dental Surgery
1838-?	David B. Bradford M.D. 1833, College of Physicians and Surgeons, Western District of New York (Fairfield)
1854-1910	Frank C. Briggs d. Cleveland, Ohio, March 25, 1910
1859-89	Lewis Buffet† D.D.S. 1863, Pennsylvania College of Dental Surgery M.D. 1865, Western Reserve College Medical Department d. Easton, Md., Jan. 27, 1901, aet. 73
1848-49	Charles Bunn
1852-53	Hiram Palmer Burdick M.D. 1853, Western College of Homeopathic Medicine d. Alfred, N. Y., Mar. 4, 1904, aet. 84
1856-61	Edward G. Burger*
1859-80	Smith Barker Burnham, M.D. A.B. 1842, Union College d. Chicago, Ill., May 26, 1905, aet. 84
1857-1914	Charles Richard Butler† D.D.S. 1858, Pennsylvania College of Dental Surgery M.D. 1865, Western Reserve College Medical Department d. Minneapolis, Minn., Dec. 15, 1914, aet. 82
1843-? Carter
1837-?	J. A. Cody M.D. Royal College of Surgeons, London

† indicates charter member of Ohio State Dental Association in 1867.

* indicates charter member of Northern Ohio Dental Association in 1857.

<i>Years in Cleveland</i>	<i>Name</i>
1843-44	Nelson T. Cody
1837-38	Richard Coredon M.D. Royal College of Surgeons, London
1859-97	Joshua Robinson Daniels d. Cleveland, Ohio, May 6, 1897, aet. 68
1854	J. Davis
1857-66	McKendree J. Dickerson*
1855-56	E. Duman
1835-36	James Hervey Farnsworth d. Detroit, Mich., Mar. 28, 1895, aet. 77.
1859-61	James Goodwillie D.D.S. 1861
1850-51	Wellington W. Gray M.D. 1854, Western College of Homeopathic Medicine
1858-62	W. S. Guild
1857-92	Alexander Bold Halliwell M.D. 1855, Western Reserve College Medical Department d. Cleveland, Ohio, 1893, aet. 69
1845-47	Shepard L. Hamlen d. New York City, 1866
1852-1923	William Perry Horton*¶ D.D.S. 1865, Ohio College of Dental Surgery d. Cleveland, Ohio, Feb. 10, 1923, aet. 99
1843-?	J. D. Howe
1857-58	Luman Church Ingersoll* A.B. 1846, Oberlin College Graduate 1849, Oberlin Theological Seminary A.M. 1873, Oberlin College D.D.S. (Hon.) 1883, Ohio College of Dental Surgery d. Keokuk, Iowa, May 24, 1897, aet. 73
1859-61	W. B. Ingersoll
1855-?	Daniel (David?) P. Kaynor M.D. 1849, Castleton Medical School
1857-62	Jacob Koch
1858-62	George Langsdorff
1859-61	William LeBaron
1852-53	Isaiah Lukens M.D. 1848, University of Pennsylvania d. Wilmington, Del., Aug. 19, 1887, aet. 70
1857-58	Thomas McCune* D.D.S. 1857, Pennsylvania College of Dental Surgery

<i>Years in Cleveland</i>	<i>Name</i>
1857-58	Rodney Mathews M.D. 1844, Western Reserve College Medical Department d. Nebraska City, Neb., Aug. 14, 1882, aet. 60
1857-58	Maurice W. Mawson
1852-64	Ebenezer Merritt* d. Cleveland, Ohio, Sept. 5, 1864, aet. 70
1856-66	Josiah G. Moore*
1850-70	Alexander P. Morse d. Cleveland, Ohio, Aug. 2, 1878, aet. 71
1848-49	Lorenzo D. Parker
1850-90?	Benjamin Pearce
1857-?	David Pollock
1849-84	Benjamin Franklin Robinson,*¶ M.D. d. Cleveland, Ohio, Apr. 9, 1884, aet. 75 D.D.S. (Hon.)
1853-58	Jeremiah A. Robinson* d. Grand Rapids, Mich., Mar. 3, 1897, aet. 85
1853-1900	Jere E. Robinson*¶ M.D. Hon. 1891, Homeopathic Hospital College D.D.S. Hon. 1891, Homeopathic Hospital College d. Brooklyn, N. Y., July 13, 1907, aet. 74
1836-37	George W. Sargeant
1852-53	S. P. Short
1845-78	Franklin Steele Slosson* D.D.S. 1866, Ohio College of Dental Surgery M.D. Hon. 1871, Wooster Medical College d. Cleveland, Ohio, Aug. 2, 1886, aet. 84
1845-46	Samuel Hotchkiss Spencer M.D. 1845, Western Reserve College Medical Department d. Cortland, Ohio, Oct. 5, 1888, aet. 64
1835-76	Benjamin Strickland, M.D.¶* D.D.S. Hon. 1843, Baltimore College of Dental Surgery d. Cleveland, Ohio, February 21, 1889, aet. 79
1834-35	J. S. Ware
1847-50	D. C. White
1857-80?	Joseph Willson* (First colored dentist)
1840-63	Martin Luther Wright M.D. 1847, Western Reserve College Medical Department d. Ripon, Wis., Mar. 19, 1863

Total, 58

APPENDIX II

TEACHERS OF DENTAL SUBJECTS IN THE DENTAL DEPARTMENT OF THE
HOMEOPATHIC HOSPITAL COLLEGE AND OF THE CLEVELAND
UNIVERSITY OF MEDICINE AND SURGERY

1891-1896

The year before the name indicates beginning of teaching and the year after the name indicates the year when teaching terminated. All were professors, except as noted.

1891	Henry Barnes, D.D.S. (Hon.), M.D. (Hon.) d. Cleveland, O., Dec. 6, 1922, aet. 82	1896
1891	Seymour Byron Dewey, D.D.S. (Hon.), M.D. (Hon.) d. Cleveland, O., Feb. 1, 1929, aet. 76	1896
1891	Herbert Franklin Harvey, D.D.S. (Instructor) d. Cleveland, O., Dec. 26, 1929, aet. 79	1892
1891	David Rawson Jennings, D.D.S. (Hon.) d. Cleveland, O., Oct. 29, 1897, aet. 67	1892
1891	Jere E. Robinson, D.D.S. (Hon.), M.D. (Hon.) d. Brooklyn, N. Y., July 13, 1907, aet. 74	1896
1891	Ira Emmitt Sampsell, D.D.S., M.D. (Hon.) d. Cleveland, O., Mar. 15, 1892, aet. 35	1892
1891	Will Henry Whitslar, D.D.S., M.D. d. Cleveland, Dec. 11, 1930, aet. 68	1892
1891	George Henry Wilson, D.D.S. d. Cleveland, O., Apr. 12, 1922, aet. 67	1892
1892	Louis Prentiss Bethel, D.D.S., M.D. (Hon.) d. Columbus, O., Jan. 17, 1936, aet. 76	1894
1892	William Thomas Jackman, D.D.S. d. Cleveland, O., July 19, 1918, aet. 59	1896
1892	John Franklin Stephan, D.D.S. (Instructor)	1893
1893	Grant Mitchell, D.D.S. d. Pittsburgh, Pa., Oct. 1, 1918, aet. 54	1894
1894	Lafayette Lyman Barber, D.D.S.	1896
1894	Charles Gibson Myers, D.D.S. d. Cleveland, O., Oct. 2, 1926, aet. 61	1896

APPENDIX III

GRADUATES AND NON-GRADUATES OF DENTAL DEPARTMENT OF
HOMEOPATHIC HOSPITAL COLLEGE AND CLEVELAND
UNIVERSITY OF MEDICINE AND SURGERY*Graduates*

Total 26

(Order alphabetical. Year of graduation indicated by date preceding each name.)

- 1892 (Hon.) Henry Barnes
d. Cleveland, O., Dec. 6, 1932, aet. 82
- 1892 George Ernest Bishop
M.D. 1893, Cleveland University of Medicine and Surgery
- 1896 Thomas William Blanton
d. Cleveland, June 28, 1919, aet. 50
- 1895 James Milford Chambers
- 1892 John Moir Clyne
M.D. 1878, Western Reserve College Medical Department
d. Lakewood, O., Feb. 20, 1925, aet. 75
- 1894 John G. Colton
M.D. 1895, Cleveland University of Medicine and Surgery
- 1892 (Hon.) Seymour Byron Dewey
d. Cleveland, O., Feb. 1, 1929, aet. 76
- 1896 Joseph Schell Ewald
- 1894 Maurice Adelbert Fenton
- 1892 Charles Sylvester Geer
M.D. 1878, Homeopathic Hospital Medical College
d. North Ridgeville, O., Mar. 2, 1901, aet. 57
- 1894 Fred Avery Herrick
d. Chicago, Ill., in 1915, aet. 43
- 1896 Frank Sherman Hunter
d. Tionesta, Pa., Nov. 9, 1925, aet. 60
- 1893 William McCready Hutchinson
d. Chicago, Ill., Sept. 16, 1893, aet. 24
- 1894 William Gladden Johnson
d. Cleveland, O., Dec. 30, 1921, aet. 50
- 1895 Louis Amedius Keller
- 1892 Charles Sumner Kelsey
- 1895 Edwin Stanton Kiplinger
- 1896 Hoyt Mather Lance
- 1892 Percy Whittingham Murton

- 1895 Jay Thorne Newton
d. Cleveland, O., Feb. 4, 1926, aet. 53
- 1896 George Herbert Ormeroid
- 1892 (Hon.) Jere E. Robinson
d. Brooklyn, N. Y., July 13, 1907, aet. 74
- 1892 William Edwards Root
- 1896 Edith Noble Sloan
- 1895 Samuel Howard Stevens
- 1893 John Whittlesey Wilson
M.D. 1893, Cleveland University of Medicine and Surgery
d. Cuyahoga Falls, O., Apr. 2, 1901, aet. 31

The numbers of graduates by years are: 1892, 6; 1893, 2; 1894, 4; 1895, 5; and 1896, 6; plus 3 honorary degrees given in 1892; making a total of 23, plus 3, or 26.

Non-Graduates

Total, 31

- Lynn Spencer Armstrong, D.D.S. 1897, Western Reserve University
d. Cleveland, O., Sept. 10, 1939, aet. 69
- Louis A. Avery
- William Zelotus Barrett, D.D.S. 1899, Philadelphia Dental College
- William Dudley Bolton, D.D.S. 1897, Western Reserve University
- Luther Lawrence Bosworth, D.D.S. 1897, Western Reserve University
- Victor J. Boyle
- William Merton Chapman
- Robert Stanley Conner, D.D.S. 1895, Pennsylvania College of Dental Surgery
- William Edward Costello, D.D.S. 1899, Western Reserve University
d. Cleveland, O., Feb. 23, 1907, aet. 36
- Willard Ridel Dixon, D.D.S. 1897, Western Reserve University
- Foster Oran Dudgeon, D.D.S. 1898, Western Reserve University
- John Francis Eberhardt, D.D.S. 1897, Ohio Medical University
- Charles Drawn Elder, D.D.S. 1898, Western Reserve University
d. Pittsburgh, Pa., 1902
- Don C. Gorrell
- Samuel William Hatch, D.D.S. 1898, Western Reserve University
d. Cleveland, O., Apr. 20, 1935
- William Emmett Higbie, M.D. 1899, Medical College of Ohio
- Gilbert Pell Hildebrand
- Frank Johnson
- John Howard Johnson, M.D. 1897, Cleveland University of Medicine and Surgery

Thomas Burtell Johnson, D.D.S. 1898, Western Reserve University
d. Cleveland, O., Dec. 5, 1916, aet. 49

Henry Vane Keepers
d. Columbus, O., Feb., 1918

Frank E. McLaughlin

William Merton Megginson, D.D.S. 1897, Western Reserve University

John Augustus Osborn, D.D.S. 1897, Western Reserve University
d. Cleveland, O., Dec. 12, 1904, aet. 26

Everett Eugene Quirk, D.D.S. 1898, Western Reserve University

Samuel Harrison Ralston, D.D.S. 1899, University of Western Penna.
d. Avalon, Pa., July 3, 1914, aet. 56

John Howard Sloan, D.D.S. 1897, University of Western Pennsylvania

Walter Paul Smith, D.D.S. 1897, Western Reserve University

Hubert Livermore Sprackling, D.D.S. 1899, Dental Department of Bal-
timore Medical College

Bert Leroy Wallace D.D.S. 1897, Ohio Medical University

Charles Frederick Wallace, D.D.S. 1897, Western Reserve University

APPENDIX IV

OFFICERS

Presidents of the University and Chairmen of the Faculty

- 1890-1921 Charles Franklin Thwing, A.B., A.M., D.D., LL.D., Litt.D.
d. Cleveland, Aug. 29, 1937, aet. 83
- 1921-1923 James DeLong Williamson, A.B., A.M., D.D.
d. Cleveland, Sept. 17, 1935, aet. 86
- 1923-1933 Robert Ernest Vinson, A.B., D.D., LL.D.
- 1933- Winfred George Leutner, A.B., A.M., Ph.D., LL.D.

Deans of the Faculty

- 1892-1893 *Charles Richard Butler, M.D., D.D.S.
- 1893-1907 *Henry Lovejoy Ambler, A.B., M.S., D.D.S., M.D.
- 1907-1908 *Thomas James McLernon, D.D.S.
- 1908-1917 Edward Elwell Belford, D.D.S.
- 1917-1937 Frank Monroe Casto, D.D.S., M.D., Ph.G.
- 1937- William Leroy Wylie, B.S., D.D.S.

Secretaries of the Faculty

- 1892-1904 *Will Henry Whitslar, D.D.S., M.D.
- 1904-1906 Herman Clifford Kenyon, D.D.S.
- 1906-1917 Henry Milton Brown, D.D.S.
d. Ashtabula, O., Jan. 25, 1923, aet. 50
- 1917-1937 Joseph Patrick Henahan, D.D.S.
- 1937- William Wesley Hurst, D.D.S.

Registrars

- 1918-1920 William Harper Owen McGehee, D.D.S., M.D.
- 1920-1934 John Faris Berry, A.B., A.M., B.D.

Superintendents of Clinics

- 1892-1900 *Will Henry Whitslar, D.D.S., M.D. (Operative)
- 1892-1900 *George Henry Wilson, D.D.S. (Prosthetic)
- 1900-1901 Varney Edward Barnes, D.D.S. (Prosthetic)
- 1900-1901 Daniel Hendrix Ziegler, D.D.S. (Operative)
- 1901-1903 *George Henry Wilson, D.D.S.
- 1903-1904 Daniel Hendrix Ziegler, D.D.S. (Operative)
- 1903-1904 *Douglas Austin Wright, D.D.S. (Prosthetics)
- 1904-1906 Henry Milton Brown, D.D.S.
d. Ashtabula, O., Jan. 25, 1923, aet. 50
- 1905-1906 John Hasson McKerrall, D.D.S. (Operative)
d. Cleveland, O., May 3, 1924, aet. 49

1906-1908	*Thomas James McLernon, D.D.S.
1908-1910	Edward Elwell Belford, D.D.S.
1910-1911	William Charles Stillson, D.D.S.
1912-1916	John Herbert Hood, D.D.S.
1916-1917	David Este Sheenan, D.D.S.
1917-1920	William Harper Owen McGehee, D.D.S.
1920-1922	Arthur John Taylor, D.D.S.
1922-1937	William Leroy Wylie, D.D.S.
1937-	James Rollin Yant, D.D.S.

Superintendents of Laboratories

1902-1903	*George Henry Wilson, D.D.S.
1903-1906	*Douglas Austin Wright, D.D.S.
1906-1908	Edward Elwell Belford, D.D.S.
1908-1910	William Charles Stillson, D.D.S.

*Data regarding deaths is given in this appendix for those only whose names do not appear in Appendix V.

APPENDIX V

TEACHING STAFF

This list, compiled from the lists of teachers in the annual catalogues, is arranged in seven groups—professors, associate professors, assistant professors, lecturers, instructors, demonstrators, and assistants.

A teacher is put into the highest group which he attained at any time during his teaching career in this school. A few have held first a high title and later a lower. These will be found in the highest group, not in the final group in which they taught. The names are in the chronological order in which the group was reached. If more than one entered the group in the same year these are in alphabetical order.

Preceding each name is a date which shows the beginning of the session in which the person began to teach in this school. This is not the year in which he reached this group if he was promoted from a lower one.

After each name is a date which shows the end of the session in which the individual completed his teaching in this school. If he is still on the teaching staff the termination date is replaced by the word "current." Not all men began at the beginning of a session and not all continued to the end of the session, but subtraction of the beginning date from the termination date or from 1940 will give the approximate number of years of teaching service in this school. When service has been interrupted two pairs of dates are given.

Catalogues published in July (1906 to 1920) included the names of those appointed for the next session. A few of these appointees did not actually begin teaching service. Two men, newly appointed, died in the summer, and a few newly appointed men resigned before the session opened. These names are not included.

From 1892 to 1895 dental students were taught in the same classes with medical students by men of the medical faculty who were not members of the separate dental faculty. Such teachers

are not included. Men who were designated as Special Lecturers are, likewise, not included, because they gave too little instruction.

Catalogues of 1931-32 and thereafter carry, at the end of the list of the teaching staff of the dental school, a list of those who, being members of the teaching staffs of other schools in the university, as a minor and incidental duty taught dental students. These were later called associates. Their names are not included in this tabulation. In a few cases teachers were on the dental teaching staff until 1930 and then continued as associates to teach dental students for a time. Such men are given a termination date of 1930, but the asterisk appended to this entry indicates that they continued as associates for one or more sessions. Those who had teaching titles from 1906 to 1916 inclusive did not receive them under university authority, but were so designated by the officers of the company that conducted the school during the affiliated era.

Professors

1892	Charles Richard Butler, M.D., D.D.S. d. Minneapolis, Minn., Dec. 15, 1914 aet. 82	1893
1892	George Henry Wilson, D.D.S.	1905
1917	d. Cleveland, O., Apr. 12, 1922, aet. 67	1918
1892	Will Henry Whitslar, D.D.S., M.D.	1904
1920	d. Cleveland, O., Dec. 11, 1930, aet. 68	1930
1892	Henry Lovejoy Ambler, B.S., M.S., D.D.S., M.D. d. Cleveland, O., June 14, 1924, aet. 81	1907
1895	Carl August Hamann, M.D.	1906
1917	d. Cleveland, Jan. 12, 1930, aet. 61	1919
1895	William Travis Howard, Jr., M.D.	1901
1895	John George Spenzer, M.D., Ph.D. d. Cleveland, O., July 26, 1932, aet. 67	1896
1895	George Neil Stewart, A.M., D.Sc., M.D., D.P.H. d. Cleveland, O., May 28, 1930, aet. 70	1903
1896	Calvin Suverill Case, M.D., D.D.S. d. Kenilworth, Ill., Apr. 16, 1923, aet. 76	1902
1896	Perry Lynes Hobbs, B.S., Ph.D. d. Cleveland, O., Apr. 6, 1912, aet. 50	1903
1893	John Franklin Stephan, D.D.S.	1901
1892	John William Van Doorn, D.D.S.	1905
1906		1908

1895	Louis Prentiss Bethel, M.D., D.D.S. d. Columbus, O., Jan. 17, 1936, aet. 76	1901
1899	Daniel Hendrix Ziegler, D.D.S.	1905
1898	Herman Clifford Kenyon, D.D.S.	1906
1901	Roger Griswold Perkins, A.B., A.M., M.D.	1906
1915	d. Providence, R. I., Mar. 28, 1936, aet. 62	1930
1897	Weston Andrew Valteau Price, M.S., D.D.S.	1904
1899	Douglas Austin Wright, D.D.S. d. before 1917	1906
1904	Frank Monroe Casto, D.D.S., M.D., Ph.G.	1907
1917		1937
1904	Arthur Ira Brown, M.D., D.D.S.	1906
1906	Edward Elwell Belford, D.D.S.	1917
1906	Frederic Chester Curtis, M.D. d. Cleveland, O., Feb. 7, 1936, aet. 63	1909
1906	Ralph Woodbury Elliott, Ph.B., M.D.	1915
1906	Henry Edmund Frisell, D.D.S., B.S.	1917
1906	Alfred Irving Ludlow, A.B., A.M., M.D.	1911
1906	Thomas James McLernon, D.D.S. d. Camden, N. J., May 4, 1928, aet. 67	1908
1906	Henry Lindsay Sanford, A.B., M.D. d. Cleveland, O., Feb. 5, 1938, aet. 64	1910
1903	William Hawksley Weir, M.D., C.M.	1912
1907	Charles Chamberlin Rogers, D.D.S. d. New York City, Oct. 9, 1935, aet. 58	1911
1908	Samuel William Allen, D.D.S. d. Cleveland, O., Feb. 3, 1919, aet. 36	1919
1904	Cecil Orville Witter, B.S., M.D. d. Cleveland, O., Oct. 28, 1928, aet. 55	1918
1908	William Charles Stillson, D.D.S.	1915
1917		Current
1909	Lawrence Alfred Krejci, D.D.S.	1918
1916	Guy Dudley Lovett, A.B., D.D.S.	1913
1916	d. Cleveland, O., Mar. 4, 1936, aet. 61	1917
1912	Roy Gentry Pearce, A.B., M.D.	1915
1911	Vernon Cecil Rowland, B.S., A.M., M.D.	Current
1914	Thomas Wingate Todd, M.B., Ch.B.	1917
1932	d. Cleveland, O., Dec. 28, 1938, aet. 53	1938
1911	John Herbert Hood, D.D.S.	1927
1915	John James Rickard Macleod, M.B., Ch.B., O.P.H. d. Aberdeen, Scotland, Mar. 17, 1935, aet. 58	1918
1901	Frederick Clayton Waite, B.Litt., A.M., Ph.D.	1903
1915		1940
1914	Joseph Patrick Henahan, D.D.S.	1937

1917	William Harper Owen McGehee, D.D.S., M.D.	1920
1918	Henry Hallock Hosford, A.B., A.M., Ph.D.	1930
1918	Carl John Wiggers, M.D.	Current
1920	Isaac Lester Furnas, D.D.S.	1937
1924	Theodore William Maves, D.D.S.	1929
	d. Cleveland, O., Oct. 28, 1939, aet. 51	
1922	William Leroy Wylie, B.S., D.D.S.	Current
1909	Thomas Joseph Hill, D.D.S.	1911
1918		Current
1928	Howard Thomas Karsner, M.D.	Current
1929	Victor Caryl Myers, A.B., A.M., Ph.D., D.Sc.	Current
1930	John Angus Doull, A.B., M.D., C.M., D.P.H.	Current
1923	Robert Philip Dressel, D.D.S.	Current
1922	William Wesley Hurst, D.D.S.	Current
1918	John Aloysius Sweeney, D.D.S.	Current
1939	Normand Louis Hoerr, A.B., Ph.D., M.D.	Current

Total: 55 professors with average teaching
service of 11.4 years

Associate Professors

1917	Norman William Ingalls, B.S., M.D.	1932
1915	Bradley Merrill Patten, A.B., A.M., Ph.D.	1922
1920	Samuel Wood Chase, A.B., A.M., Ph.D.	Current
1920	Louis Joseph Karnosh, B.S., M.D.	1928
1919	Arthur Bradley Eisenbrey, Ph.B., M.D.	1933
	d. Cleveland, O., Mar. 31, 1933, aet. 52	
1915	Gaius Elijah Harmon, M.B., M.D., C.P.H.	1935
1924	George Burrill Ray, B.S., A.M., Ph.D.	1933
1930	Eugene William Skinner, A.B., M.S., Ph.D.	1934
1925	Charles Joseph Vosmik, D.D.S.	Current
1939	Donald Mitchell Glover, A.B., M.D.	Current

Total: 10 Associate Professors with average
teaching service of 11.3 years

Assistant Professors

1903	Willis Sanford Hobson, A.B., M.D.	1906
	d. Boston, Mass., Apr. 5, 1919, aet. 43	
1902	John Schell Tierney, M.D.	1906
1904	Frank Acker, D.D.S., M.D.	1906
1904	Howard Davis Haskins, A.B., M.D.	1906
	d. Portland, Ore., Nov. 20, 1933, aet. 62	
1916	David Este Sheehan, D.D.S.	1918
1919	Eugene Lyman Porter, A.B., A.M., Ph.D.	1924
1920	Ferdinand George Behmlander, D.D.S.	1924

1925	Robert Nelson Hoyt, B.S., C.P.H., D.P.H.	1929
1926	David Rapport, A.B., M.D.	1928
1923	Louis Nelson Katz, A.B., A.M., M.D.	1924
1927		1929
1929	Howard Horace Beard, B.S., A.M., Ph.D.	1931
1923	William Charles Beutel, D.D.S.	Current
1927	William Michael Gardner, D.D.S.	Current
1925	Paul Phelps Sherwood, D.D.S.	Current
1928	James Rollin Yant, D.D.S.	Current
1929	James Eldon Bliss, D.D.S.	1932
1934		Current
1926	Willis Edward Corry, D.D.S.	Current
1930	Philander Bernard Taylor, A.B., A.M.	1933
1934		Current
1927	Elmer Frank Boester, D.D.S., M.Sc.D.	1928
1930		Current
1929	Calvin Oliver Fritz, D.D.S.	Current

Total: 20 Assistant Professors with average
teaching service of 7 years

Lecturers

1892	Herbert Franklin Harvey, D.D.S.	1896
	d. Cleveland, O., Dec. 26, 1929, aet. 79	
1892	David Rawson Jennings, D.D.S.	1897
	d. Cleveland, O., Oct. 29, 1897, aet. 57	
1892	John Ralph Owens, D.D.S.	1901
1893	Harry Augustus Garfield, A.B.	1899
1897	William George Ebersole, D.D.S., M.D.	1900
	d. Cleveland, O., Oct. 5, 1920, aet. 56	
1899	Frederick Augustus Henry, A.B., A.M., LL.B.	1905
1905	William Theodore Arnos, A.B., LL.B.	1909
1906	Walter Coit Hill, M.D.	1910
1908	Walter Edwin Newcomb, D.D.S.	1909
1907	Horace Van Valkenburg, D.D.S.	1909
1909	Isidore Grohs, LL.B.	1917
1909	Robert James Armstrong, D.D.S.	1913
1910	Edward Lacey Pettibone, D.D.S.	1920
1912	Herbert Hamlin Dowd, D.D.S.	1919
1913	Carl Lenze McDonald, M.D.	1920
1916	Frank Lyman Olds, D.D.S.	1918
1917	Clarence Millard Finfrock, A.B., A.M., LL.B.	*1930
1921	Justus Alvin Garvin, B.S., M.D.	1922
1921	Harold Gernard Hood, D.D.S.	1924
1921	Harry Vincent Paryzek, A.B., M.D.	1924

1921	Merthyn Arthur Thomas, A.B., M.D.	1922
1922	Earl Delbert Cumming, A.B., M.D.	1926
1922	Ross Lee Edmondson, A.B.	1923
1924	Monica Minerva Allen, B.S., A.M.	1927
1924	John George Meisser, D.D.S.	1927
1924	Ernest Elwood Stanford, B.S., M.D., Ph.D.	1925
1926	Isaac Herry Einsel, A.B., M.D.	1938
1926	John Joseph Kelley, D.D.S.	1928
1926	John Charles Lupton, D.D.S.	Current
1927	Francis James Bacon, B.S., M.S., Ph.G., Ph.D.	*1930
1928	Rannells Clinton Owen, D.D.S.	1930
1933	John Faris Berry, A.B., A.M., B.D.	Current
1937	Gaylord Joseph James, D.D.S.	Current

Total: 33 Lecturers with average
teaching service of 4.8 years

Instructors

1899	Varney Edwad Barnes, D.D.S.	1902
1902	Frank Leslie Smith, D.D.S.	1903
	d. Denver, Col., Mar. 28, 1911, aet. 43	
1915	Sherrill Atwood Cleaveland, A.B., M.D.	1917
1913	Louis Riedel Hill, D.D.S.	1917
1915	George Eric Simpson, B.S., A.M.	1916
	d. Philadelphia, Pa., Dec. 23, 1927, aet. 38	
1916	Harold Jennings Knapp, A.B.	1917
1917	Carl Addison Groetzinger, B.S.	1913
1917	John Willard Kimball, B.S., Ph.D.	1918
1917	Walter August Peters, A.B.	1919
	d. Cleveland, O., Nov. 22, 1926, aet. 36	
1917	James Ernest Kindred, A.B., A.M., Ph.D.	1920
1918	Jesse William Moyer, B.S., LL.B.	1919
	d. Lakewood, O., Mar. 28, 1924, aet. 50	
1919	Arthur Christian Bender Baumann, A.B., A.M.	1922
1919	Loyal Eugene Calkins, A.B.	1924
1919	Donald Dean Cornell, D.D.S.	1920
1919	Alvin Edwin Drach, M.D., D.D.S.	1922
	d. Cleveland, O., Nov. 7, 1922, aet. 32	
1918	Edwin Jacob Knaus, D.D.S.	1920
1919	Emerson Megrail, A.B., A.M., M.D.	1921
1919	Charles Alexander Miller	1920
1920	Henry Lawrence Hall, A.B., M.D.	1923
	d. East Orange, N. J., Apr. 22, 1937, aet. 64	
1917	Arthur John Taylor, D.D.S.	1922
1920	Charles Ward Thomas, B.S.	1922

1920	George Fayette Woodbury, D.D.S.	1921
1920	Thomas Fitzgerald Healy, D.D.S.	1923
1920	Leland Roy Smith, A.B., A.M.	1922
1920	Frank Alvin Yocum, D.D.S.	1922
1922	Evan William Mollenkopf, D.D.S.	1928
1922	Howard Arthur Nelson, D.D.S.	1925
1924	Theodore Sessinghaus Eliot, A.B., A.M., Ph.D.	1927
1921	Ralph Percival Howarth, D.D.S.	1925
	d. Cleveland, O., Mar. 26, 1936, aet. 37	
1924	George William Wagner, A.B., M.S.	1925
1925	Kenneth Edmund Long, A.B.	1927
1925	Arthur John Aufderheide, D.D.S.	1929
1922	Arthur Casimir John Brickel, A.B., M.D.	*1934
1922	Ralph Malnotte Ennes, D.D.S.	1925
1927		1928
1927	John Theron Illick, A.B., A.M., Ph.D.	1929
1927	Milton Needham Thompson, D.D.S.	1928
1927	John Bascom Tindall, B.S., M.S.	1929
1927	Eli Farquhar Walker, D.D.S.	1929
1925	LaVerne Almon Barnes, B.S., Ph.D.	1926
1929		1931
1929	Franklin Church Bing, A.B., Ph.D.	*1933
1929	James Milton Courtney, D.D.S.	1931
1929	Forrest Draper McCrea, B.S., M.S., Ph.D.	1931
1929	John Paul Quigley, B.S., M.S., Ph.D.	*1933
1929	John Ivan Sloan, D.D.S.	1936
1930	Donald Eaton Gregg, B.S., Ph.D.	*1933
1929	Lydon Emery Cooke, D.D.S.	1936
1931	Randall Leslie Thompson, B.S., M.S., D.Sc.	*1934
1934	Charles Burton Kohl, D.D.S.	1936
1930	Harold Clair VanAtta, D.D.S.	1933
1934		1937
1933	George Matthew Jilovec, B.S., D.D.S.	1937
1934	Gunnar Andrew Peterson, D.D.S.	Current
1938	Edmund Earl Beard, A.B., M.D.	Current
1918	John Hatch Clark, D.D.S.	1920
1932		Current
1934	George Gartner, B.S., D.D.S.	Current
1934	Herbert Paul Janke, D.D.S.	Current
1931	Fred Marshall Kinney, Jr., D.D.S.	1932
1933		Current

Total: 56 instructors with average
teaching service of 3.5 years

Demonstrators

1896	Charles Emery Hurd, D.D.S.	1901
	d. Cleveland, O., Apr. 20, 1924, aet. 65	
1900	James Freed Wark, D.D.S.	1906
	d. Cleveland, O., 1906, aet. 30	
1902	Joseph Anson Coates, D.D.S.	1905
	d. Cleveland, O., Oct. 25, 1936, aet. 68	
1905	Edwin Deroger Phillips, D.D.S.	1906
1906	Henry James Friedman, D.D.S.	1907
1906	William Bearse Gerow, D.D.S.	1908
1906	L. Howard Simpkins (no degree)	1907
1909	Roy Bertsch, D.D.S.	1912
1909	Frank Cornelius Campbell, D.D.S.	1910
1910	Herbert Charles Jelley, D.D.S.	1911
1910	Walter John Pryor, D.D.S.	1911
1910	Henry Steuer, D.D.S.	1915
1911	Walter Rolli Curry, D.D.S.	1912
1911	Evan William Davies, D.D.S.	1912
1911	Chester Claude Roswurm, D.D.S.	1912
1912	Joseph Henry Burns, D.D.S.	1913
	d. Cleveland, O., Sept. 28, 1916, aet. 29	
1912	Harry Albert Reiman, D.D.S.	1913
1912	Bertram Seddon Rothwell, D.D.S.	1915
1916		1917
1913	Garner Terry Baldwin, D.D.S.	1915
1913	Nelson Sylvester Goodhile, D.D.S.	1914
	d. Cleveland, O., May 22, 1922, aet. 41	
1913	Stanley Rankin Rayman, D.D.S.	1914
1913	Leon Howard Stuart, M.S.	1916
1914	John Belford, D.D.S.	1918
1914	Wilbur William York, D.D.S.	1916
1915	John William Conwell, A.B.	1916
1915	Alfred Walter Orcutt, B.S., A.M.	1917
	d. Cleveland, O., May 11, 1917, aet. 28	
1915	Alan Louis Patterson, D.D.S.	1916
1915	John Clayton Shotton, D.D.S.	1916
1916	Harry Byron Cochran, D.D.S.	1917
1916	Clayton Thomas Joseph Dodge, B.S., M.D.	1917
1922		1923
1916	Harry Sutherland Hutchinson, B.S.	1917
1916	Robert Levi McIntosh, D.D.S.	1917
1916	Alan MacLachlan, D.D.S.	1917
1916	Leon Ettiene Newman, D.D.S.	1917
1916	Herman Charles Webb, D.D.S.	1917

1916	Frank Adolph Zastrow, D.D.S.	1917
1917	Robert Plaga, Jr., D.D.S.	1919
1917	Ernest Frank Sharp, D.D.S.	1919
1918	Charles William Sund, D.D.S.	1919
1918	Frank Ignatius Zralik, D.D.S.	1919
1919	Walter Coombs Corey, B.S.	1924
1919	Allen Graham, B.S., M.D.	1920
1920	John Francis Andes, D.D.S.	1922
	d. Cleveland, O., July 5, 1936, aet. 49	
1920	Lyman Foster Huffmann, B.S., M.D.	1923
1920	Willard Eugene Nudd, B.S.	1922
1920	Hilda Elizabeth Roehm, A.B.	1922
1920	Harry Albion Rood, D.D.S.	1922
1920	Jean Chiron Snyder, A.B.	1921
1920	Lada James Turek, D.D.S.	1921
1921	James Carroll Faus, D.D.S.	1922
1921	James Clements Shanks, D.D.S.	1922
1921	Paul Norman Squire, A.B.	1922
1921	Roland Mitchell Strachan, D.D.S.	1922
1922	George William Behner, A.B.	1923
1922	Clayton Mack Crabtree, D.D.S.	1924
1922	Otto Kendall Holland, D.D.S.	1923
1922	George Newton Latimer, D.D.S.	1923
1922	Paul Evans Seaton, D.D.S.	1923
1922	Johnson Kent Wright, D.D.S.	1923
1923	Marion Augustus Boyd, D.D.S.	1924
1925		1927
1923	Norman Henry Denner, D.D.S.	1924
1923	Stephen Joseph Anthony Foerstner, A.B., M.D.	1926
1923	Grace Haskins, A.B.	1925
1923	Ellis Harry Hansen, D.D.S.	1924
1923	James Walter Teaff, D.D.S.	1925
1924	Mario Garcia Banus, A.B., M.D., D.Sc.	1927
1924	Edward Bellamy Hansen, D.D.S.	1927
1924	Claude George Johnson, D.D.S.	1925
1927	d. Salem, O., Oct. 14, 1935, aet. 38	1928
1924	Albert Lafayette Krewson, D.D.S.	1926
1924	Walter Dwight Thomas, D.D.S.	1925
1925	Walter John Bauer, A.B.	1926
1925	Bert Cornelius Greulich, D.D.S.	1926
1925	Edward Wallace Jensen, D.D.S.	1927
1925	Harold Wheeler Odell, A.B., M.D.	1929
1925	Leonard Francis Prendergast, D.D.S.	1926
1925	Theodore Percy Robinson, D.D.S.	1927

1925	Peter John Wawrzynski, D.D.S.	1927
1926	Ralph Heinrich Heeren, B.S.	1927
1926	William Cole McCally, A.B., A.M., M.D.	1928
1926	Russell Smith McGinnis, B.S., M.D.	1929
1930		1932
1926	Chester John Schultz, D.D.S.	1927
1926	Earl Foote Shankland, D.D.S.	1927
1926	Francis John Srbeny, D.D.S.	1927
	d. Cleveland, O., July 31, 1929, aet. 28	
1927	Orange Van Calhoun, B.S.	1928
1927	Clinton Edward Crevoisie, D.D.S.	1929
1927	Francis Xavier McNamara, Jr., D.D.S.	1929
1927	Russell Moffat York, D.D.S.	1928
1928	Herbert Livingston Davidson, D.D.S.	1929
1928	Walter Wesley Herrmann, A.B., B.S., M.D.	1929
1928	William Leonard Hieber, D.D.S.	1929
1928	Gordon Frederick Nank, D.D.S.	1929
1928	Lester Richard Towle, D.D.S.	1933
1938		Current
1929	William Andrus Casto, D.D.S.	1933
1929	Walter Alvin Eickelberg, B.S., D.D.S.	1933
1929	William Ernest Morris, D.D.S.	1930
1938		Current
1929	Gordon Brownell Richter, D.D.S.	1931
1929	Irwin Friedman Steuer, D.D.S., M.Sc.D.	1932
1929	Ward White Summerville, M.D.	1930
1929	John Howard Swanson, A.B., M.S.	1930
1929	Franklin Benjamin Vernon, D.D.S.	1930
1929	Anthony Henry Wichert, D.D.S.	1932
1930	K. Pierre Dozois, B.S., M.S.	1931
1930	Theodore Phillip Eberhard, A.B., M.D.	1931
1930	Burt Held, A.B., M.D.	1931
1930	Albert John Kunze, D.D.S.	1933
1930	George Hugo Paff, B.S., A.M.	1933
1930	Ellis Wesley Ryan, D.D.S.	1931
1931	Jerome Eli Andes, B.S., M.S.	1932
1931	Russell Oscar Bowman, A.B.	1932
1931	Charles Burton Kohl, D.D.S.	1934
1930	William Lloyd Adams, B.S.	1931
1932		1933
1932	Samuel Robert Means Reynolds, A.B., A.M., Ph.D.	1933
1933	Angelo Charles Caponigro, B.S., D.D.S.	Current
1933	John Canfield Jaynes, B.S., D.D.S.	1934
1933	Jerome Joseph Vynhal, B.S., D.D.S.	1935

1934	Andrew John Soros, A.B., D.D.S.	1937
1935	Malcolm Freeman Campbell, B.S., D.D.S.	1936
1935	Theodore Roosevelt Liberatore, B.S., D.D.S.	Current
1935	Marshall Weaver, D.D.S.	1938
	d. Cleveland, Apr. 21, 1939, aet. 30	
1936	Kenneth Dwight Baldwin, B.S., D.D.S.	Current
1936	Walter William Becker, B.S., D.D.S.	Current
1936	Louallen Karl Bunkelman, B.S., D.D.S.	1938
1936	Wilfred Breymaier Hall, D.D.S.	Current
1936	Paul Gilmore Pryor, B.S., D.D.S.	1938
1937	Russell William Christenson, D.D.S.	Current
1937	William Edward Doyle, Ph.B., D.D.S.	Current
1937	Elgin Clay Ingram, B.S., D.D.S.	Current
1937	James Richard Loughry, B.S., D.D.S.	Current
1937	Walter Herman Maurer, B.S., D.D.S.	Current
1937	Delmont William Stephens, B.S., D.D.S.	Current
1938	Theodore Alan Bodine, D.D.S.	1939
1938	James Patrick Henahan, A.B., D.D.S.	Current
1938	Charles Rush Straub, D.D.S.	Current
1938	Lester Richard Towle, D.D.S.	Current
1938	Harold Frederick Williams, B.S., D.D.S.	1939
1939	Julian John Andrassy, B.S., D.D.S.	Current
1939	David Arthur Carnall, B.S., D.D.S.	Current
1939	Joseph William Foltz, B.S., D.D.S.	Current
1939	Charles Arthur Ruppelt, D.D.S.	Current

Total: 139 Demonstrators with average
teaching service of 1.96 years

Assistants

1901	James Allison Evans, B.S.	1903
1901	Carl Byron James, B.S.	1902
	d. Date and place not known	
1902	Joseph Charles McFate, A.B.	1903
1902	Shandor Harry Solomonson (Monson), B.S.	1903
1903	Carl Herbert Clark	1905
1912	Roy Theodore Nichols, Ph.B.	1913

Total: 6 Assistants with average teaching
service of 1.3 years

Total of 319 teachers with average teaching service of 5.2 years. Forty-four of these have served for ten years or more on the teaching staff, namely, 30 years or more, 2; 25 to 29 years, 1; 20 to 24 years, 10; 15 to 19 years, 11; 10 to 14 years, 20.

APPENDIX VI

ENROLLMENT AND GRADUATES

1892 - 1940

<i>Year</i>	<i>Enrollment</i>	<i>Graduates</i>	<i>Year</i>	<i>Enrollment</i>	<i>Graduates</i>
1892-93	21	0	1916-17	190	40
1893-94	30	4	1917-18	199	51
1894-95	53	17	1918-19	154	58
1895-96	53	7	1919-20	191	8
1896-97	86	32	1920-21	223	34
1897-98	91	28	1921-22	253	36
1898-99	96	30	1922-23	197	67
1899-00	91	30	1923-24	147	50
1900-01	102	23	1924-25	144	55
1901-02	113	31	1925-26	159	12
1902-03	114	41	1926-27	203	24
1903-04	88	34	1927-28	183	47
1904-05	79	32	1928-29	174	49
1905-06	68	14	1929-30	158	49
1906-07	74	20	1930-31	135	21
1907-08	75	24	1931-32	143	36
1908-09	68	19	1932-33	121	41
1909-10	84	20	1933-34	105	26
1910-11	91	21	1934-35	116	25
1911-12	114	33	1935-36	121	26
1912-13	125	26	1936-37	125	27
1913-14	136	45	1937-38	135	27
1914-15	161	39	1938-39	141	24
1915-16	178	37	1939-40	165	30
				Total	1470

The number of graduates for 1940 is up to July 1st. There are likely to be five additional graduates in October, 1940.

The foregoing figures of enrollment are compiled from the lists of names printed in the catalogues of each year. There were two catalogues printed in each year until 1929. In different periods the school catalogue was issued in different months, and a revision of it was included in the university catalogue. At times the university catalogue was issued earlier in the year than the school catalogue. Whichever was later issued has been taken as the better source.

Students who withdrew before the end of two months were usually not listed, and for a time only those who completed the year were listed. Special and postgraduate students are included in the table, but the women who took the course for dental assistants in 1914-16 are not listed.

There are, at times, diversions between the figures here given and those in the annual report of the dean and that of the president, because of including those who withdrew within two months.

The tabulation of graduates is compiled from records of the faculty and the trustees. During the period from 1907 to 1920, when the school catalogue was printed in July, the list of graduates of that year there printed does not include the names of those whose graduation was delayed until October.

One posthumous degree, granted in 1918, is included, and one graduate of 1899, whose degree was revoked in 1901, is not included.

APPENDIX VII

TABLE OF THE OPENING AND COMMENCEMENT DATES
FOR THE SCHOOL OF DENTISTRY OF
WESTERN RESERVE UNIVERSITY

1892 - 1940

<i>Session</i>	<i>Date of Opening</i>	<i>Date of Commencement</i>
1892-93	September 14	March 1
1893-94	September 13	March 7
1894-95	September 12	March 7
1895-96	September 18	May 20
1896-97	September 16	May 18
1897-98	September 21	May 17
1898-99	October 4	June 15
1899-00	October 3	June 14
1900-01	October 2	June 13
1901-02	October 1	June 12
1902-03	October 1	June 18
1903-04	October 1	June 16
1904-05	October 4	June 15
1905-06	October 3	June 14
1906-07	October 2	June 13
1907-08	October 2	June 11
1908-09	October 7	June 17
1909-10	October 6	June 16
1910-11	October 5	June 15
1911-12	October 4	June 13
1912-13	October 2	June 12
1913-14	October 1	June 18
1914-15	September 28	June 17
1915-16	October 4	June 15
1916-17	October 2	June 14
1917-18	October 1	June 13
1918-19	October 1	June 12
1919-20	October 2	June 17
1920-21	September 30	June 16
1921-22	September 29	June 15
1922-23	September 19	June 14
1923-24	September 18	June 12
1924-25	September 23	June 18
1925-26	September 22	June 17
1926-27	September 21	June 16

<i>Session</i>	<i>Date of Opening</i>	<i>Date of Commencement</i>
1927-28	September 20	June 14
1928-29	September 18	June 13
1929-30	September 17	June 12
1930-31	September 23	June 18
1931-32	September 17	June 16
1932-33	September 15	June 14
1933-34	September 14	June 13
1934-35	September 13	June 12
1935-36	September 19	June 10
1936-37	September 24	June 16
1937-38	September 23	June 15
1938-39	September 22	June 14
1939-40	September 21	June 12

The number of weeks of instruction, exclusive of Holiday vacation and excluding the final examination period, was twenty-two weeks from 1892-93 to 1894-95 inclusive. From 1895-96 to 1911-12 inclusive the number of weeks of instruction was thirty and included the examination period. In 1898-99 the date of opening was set forward two weeks as was also the date of commencement, the latter to be joined with the university commencement. In the first six years the commencement of the College of Dentistry was held separately.

Beginning in 1912-13 the length of session was extended to thirty-two weeks. Up to 1919-20 the thirty-two weeks included examination periods. In that year and thereafter the final examination period of one week was not included in the thirty weeks.

In 1922-23 was introduced a midyear examination period of one week which was not included in the thirty-two weeks. This policy of additional periods for examinations increased the number of weeks of instruction and also the length of the session.

THE END

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